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ABSTRACT

The effects of additional years of education on earnings, employment prospects, and work establishment are analyzed, based on information contained in the Survey of Income and Education conducted in the spring of 1976. The effects of additional years of education upon earnings are translated in a variety of ways: less unemployment, higher wages for older workers, and the ability to command higher earnings while working fewer hours. Data are presented that show the weighted number of persons in the labor force, by level of education, among target groups. In most categories, the small number of workers in an age/education group limits statistical comparisons. The earnings of workers with different levels of education vary by age and sex, and also by whether they work full-time/full-year or have a lesser commitment in the labor force. The effect of education on earnings is also examined using a variety of regression techniques or models. One model attempts to explain differences in the earnings of full-time/full-year workers as a function of their level of schooling, their experience, the number of hours worked, and whether they live in the South. A second model attempts fo pinpoint the differential impact of grade school and postsecondary education upon earnings. This impact is measured for all workers, whites, minorities, handicapped, or non-English language background. The third model takes into account the amount of schooling, weeks worked, hours worked, the effect of public employment, and that of experience. A fourth model attempts to estimate the impact of education on earnings by major occupational groups in the labor force in 1975. The rationale for the models, findings, and implications for public policy are examined. (SW)

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This paper documents and analyzes the effects of additional years of education on earnings, employment prospects, and work establishment. It is based upon information contained in the Survey of Income and Education conducted in the spring of 1976. The exposition is divided into two parts. First, the effect of additional years of education on each of these issues is treated separately, and second, the results of a number of econometric analyses are reported.

Introduction.

The Survey of Income and Education (SIE), conducted in the spring of 1976, contains a great deal of data which can be used to estimate the effects of educational attainment on incomes. The Survey has three features which commend it to the attention of researchers: (1) information was obtained from 155 thousand households, three times more than the Current Population Survey sample in 1976, (2) it was conducted by specially trained interviewers who contacted each household in person, which is preferable to interviewing people by telephone, as the CPS generally does, (3) the interviewers were specially trained to elicit complete information about earnings and to distinguish earnings from other forms of income or receipts from transfer payments.

Thus, this data base affords an unprecedented opportunity to examine variations of earnings according to level of education. Because the SIE sample is large, it affords an opportunity for some estimates of the impact of education on minority groups, such as Blacks and Hispanics, and for other target groups of special interest to the federal government.[1]

Despite these qualities, the SIE presents some problems. For example, a lower proportion of persons reported participation in the labor force in the SIE than in the CPS. We do not know for certain the reasons for these differences, but some knowledgeable Census personnel have advanced the hypothesis that differences in the emphases of the two surveys

may be responsible. The differences are documented in an appended Technical Note.

PART I

Educational attainment and earnings.

Among persons who participated in the labor force for one or more weeks in 1975, educational attainment and earnings were positively correlated. Persons with more education reported higher earnings than persons with fewer years of formal schooling. Those who had some college, for instance, reported earnings $168 higher than those whose education stopped with graduation from high school, and those who completed four years of college earned $4,019 more than those who had completed high school. (See Table 1.)

TABLE 1.--Mean earnings in 1975 of all workers age 18 and over, by sex, by level of educational attainment

	Total	Male	Female
Total	8,679	11,247	5,171
H4	8,049	10,804	4,982
C1-C3	8,217	10,652	5,104
C4	12,068	15,509	6,949
C5+	15,872	18,494	10,114

Source: Special tabulations of the SIE.

However the incremental earnings by sex did not follow the smooth progression described above. Males who had

completed one to three years of college earned $152 less than male high school graduates, while females who had completed one to three years of college earned $192 more than female high school graduates. By contrast, males who completed four years of college earned $4,705 more than male high school graduates, more than twice the $1,967 advantage in earnings reported by female college graduates over female high school graduates.

Full-time/full-year workers. Comparisons of all persons in the labor force with different levels of education are quite misleading because they do not distinguish between those who work only occasionally, and those who work the full year in full-time jobs. As long as labor force participation is affected by marriage, the presence of children (in the case of women) and decisions to attend school full-time (for both sexes), it would be unfair to measure the incremental value of additional years of education without standardizing for labor force participation.

The traditional method of standardizing for these differences is to compare the earnings of persons who work the full year on a full-time basis.[2] A comparison of these workers' earnings reveals that men with one to three years of college education earned $1,454 more--and women $992 more--than persons of the same sex who had merely completed high school. (See Table 2.)

TABLE 2.--Mean earnings in 1975 of full-time full-year workers age 18 and over by educational attainment and sex

	Total	Male	Female
Total	12,052	14,000	7,924
H4	10,785	12,836	7,417
C1-C3	12,298	14,290	8,409
C4	15,152	18,168	10,103
C5+	19,648	21,349	13,346

Source: Special tabulations of the SIE.

Full-time/full-year workers in the labor force. Figures showing the earnings differentials between full-year/full-time workers with different educational attainments in the labor force are often used as measures of the economic contribution of education to earnings. They are considered realistic yardsticks of the amount employers are willing to pay for persons with more education, who have a serious commitment to the labor force.

In fact, these comparisons underestimate the economic benefits of more schooling. As long as persons with less education are more likely to be unemployed, and also to be unemployed for longer periods of time, it would be fairer to compare the earnings of workers who were willing to work year-round at full-time jobs, irrespective of the number of weeks they actually worked. These workers are truly the ones with a major commitment to working, and if more education makes it possible for

them to achieve this commitment, this advantage should be factored into measuring the economic benefits of education.

When the earnings of all persons with varying levels of education who offered their services for 48 weeks or more and usually worked full-time are compared, the advantage of persons with more education rises. Table 3 shows that males with one to three years of college education gained $1,508 more over male high school graduates in this comparison than in the preceding one, and females with one to three years of college education gained $1,067 more. In the case of college graduates, men gained $5,573 more and women gained $2,763 more.

TABLE 3.--Mean earnings in 1975 of persons age 18 and over in the labor force full-year by educational attainment and sex

	Male			Female		
	Total	Full-Time	Part-Time	Total	Full-Time	Part-Time
Total	12,489	13,025	4,389	6,980	7,637	3,201
H4	11,625	11,967	4,549	6,194	6,911	3,154
C1	12,102	12,898	3,754	6,468	7,568	3,063
C2	13,056	13,717	4,599	7,135	8,103	3,697
C3	12,938	14,165	4,208	7,178	8,815	3,539
C1-C3	12,670	13,475	4,179	6,857	7,978	3,395
C4	17,042	17,540	6,370	8,648	9,674	4,074
C5+	20,272	20,880	7,843	11,859	13,033	5,973

Source: Special tabulations of the SIE.

We believe that these figures reflect more accurately the advantages of additional years of schooling.

Age, education and earnings. The differences between persons with different levels of education are understated when the average earnings of one group are compared with the average earnings of another educational group. The educational attainment of the work force is increasing, and the proportion of younger workers is higher among the well-educated than among persons with less education. Table 3 displays the average earnings of persons with a high school education, with some college, with four years of college, and with more than four years of college education.

The earnings differentials of workers with different levels of education widen as the workers get older. At the age of 30-34, for instance, male college graduates in the labor force full-time/full-year earned $4,174 more than high school graduates of the same age. By the age of 35-44, the discrepancy between the earnings of these two groups widened to $6,947. (See Table 4.)

Economists argue that earnings received in later years are less valuable than earnings received earlier in life. The argument is made that the money earned earlier could be invested at the current rate of interest. The usual way of comparing returns on additional education is to adopt a rate of discount which will equate earnings in different time periods. Usually the present value of a given level of education is derived by assuming

TABLE 4.--Mean annual earnings in 1975 of persons over age 18 by educational attainment, sex and age

(thousands)

	In Labor Force Full-Year Full-Time							
Male	Total	18-24	25-29	30-34	35-44	45-54	55-64	65 and older
H4	11,967	7,211	10,320	12,207	14,008	14,350	13,633	12,004
C1	12,898	7,745	10,882	13,255	14,993	16,606	15,926	15,172
C2	13,717	7,876	11,187	14,331	15,849	16,608	16,469	13,150
C3	14,165	7,757	10,696	13,942	16,950	17,828	17,448	16,729
C1-C3	13,475	7,798	10,993	13,877	15,682	16,823	16,450	14,498
C4	17,540	9,173	12,510	16,601	20,800	21,936	21,329	18,561
C5+	20,880	8,282	13,830	18,107	22,935	24,556	25,189	22,680
Female								
H4	6,911	5,416	6,859	7,173	7,416	7,692	7,619	6,604
C1	7,568	6,036	7,690	8,736	7,924	8,366	8,370	7,577
C2	8,103	6,414	8,010	8,994	8,749	8,817	8,714	9,080
C3	8,815	7,040	8,943	8,597	9,713	10,233	8,973	7,851
C1-C3	7,978	6,311	8,029	8,820	8,531	8,837	8,633	8,249
C4	9,674	7,547	9,177	10,231	10,927	11,256	10,615	12,246
C5+	13,033	8,225	11,059	12,367	14,226	15,129	13,926	12,396

TABLE 4.(Cont'd)--Mean annual earnings in 1975 of persons over age 18 by educational attainment, sex and age (thousands)

	Total In Labor Force Full Year							
Male	Total	18-24	25-29	30-34	35-44	45-54	55-64	65 and older
H4	11,625	6,696	10,135	12,162	13,949	14,242	13,382	9,561
C1	12,102	6,369	10,702	13,148	14,803	16,578	15,887	11,933
C2	13,056	6,556	11,017	14,222	15,771	16,429	16,342	11,173
C3	12,938	6,032	9,728	13,736	16,971	17,936	16,874	13,134
C1-C3	12,670	6,385	10,676	13,752	15,570	16,745	16,278	11,826
C4	17,402	7,957	12,188	16,494	20,689	21,864	20,941	16,015
C5+	20,272	6,608	12,924	17,929	22,761	24,496	24,814	19,569
Female								
H4	6,194	4,846	6,367	6,442	6,613	6,897	6,791	4,912
C1	6,468	4,769	7,072	7,692	6,885	7,534	7,524	5,259
C2	7,135	5,221	7,562	8,104	7,881	7,917	7,930	6,531
C3	7,178	4,690	8,298	7,383	8,081	9,116	8,189	6,341
C1-C3	6,857	4,927	7,474	7,802	7,485	7,938	7,827	6,038
C4	8,648	6,398	8,696	9,326	9,235	10,312	10,010	7,275
C5+	11,859	7,109	10,217	11,435	12,555	14,004	13,328	9,461

Source: Special tabulations of the SIE.

that the earnings in different age groups are representative of the prospective earnings of both past and future cohorts of persons with a given level of education.

This paper does not attempt to estimate the present value of more schooling,[3] but focuses on the effects of additional years of education on earnings, experience, and the travail of job-establishment.

Summary. However defined, workers with more education earn more than those with less. This should not lead us to assume that education produces this total increment. Persons who stay in school beyond age 16 do so voluntarily; they are different from those who leave school. In other words, personal characteristics are partially responsible for some of this difference. As a result differentials related to schooling may not provide a very accurate basis for predicting consequences of educating all the uneducated. At the margin, for small additional numbers of persons, the benefits of education would probably be realized. This caution applies to the rest of the discussion of education and other labor force characteristics of workers.

Participation in the labor force and postsecondary education.

For male respondents above age 25, there is no clear relationship between educational attainment and labor force participation. However, males under age 25 are less likely to be in the labor force full-time or full-time/full-year if they have continued their education beyond high school, since a high proportion of them are continuing their education full-time in college. (See Table 5.)

TABLE 5.--Male labor force participation rates in 1975 by age by selected levels of educational attainment (percent)

		Total	Full-Time	ILF/ Full-Time Full-Year	Number (thousands)
H4	18+	88.8	80.8	73.1	22,657
	18-24	88.0	71.3	56.2	5,477
	25-34	93.6	89.3	84.0	5,419
	35-44	95.7	92.7	88.5	4,006
	45-54	94.9	91.3	86.4	3,582
	55-64	87.3	82.5	74.5	2,745
	65+	35.1	20.9	15.2	1,425
C1-C3	18+	91.1	77.2	64.1	11,964
	18-24	90.3	58.3	30.5	3,722
	25-34	94.2	87.8	80.9	3,339
	35-44	95.1	91.9	88.1	1,682
	45-54	93.9	91.7	87.9	1,441
	55-64	86.7	80.7	74.5	1,035
	65+	43.2	27.0	19.8	697
C4	18+	91.0	83.5	74.5	6,307
	18-24	91.5	67.5	37.1	885
	25-34	95.1	90.1	83.0	2,312
	35-44	97.0	94.8	92.2	1,113
	45-54	97.5	95.2	91.6	1,009
	55-64	88.7	83.8	77.2	550
	65+	36.8	24.9	18.8	437
C5	18+	91.5	83.4	72.1	5,447
	18-24	91.4	53.2	21.0	267
	25-34	94.3	85.2	73.0	1,945
	35-44	95.3	92.1	83.4	1,298
	45-54	97.5	95.2	87.3	936
	55-64	91.9	87.5	76.7	572
	65+	53.6	36.1	16.7	429

Source: Special tabulations of the SIE.

Females who have continued their education beyond high school have higher labor-force participation rates than those with a high school education in most age groups. Just as in the case of men, the proportion of women who are in the

labor force full-time/full-year is lower among those with some postsecondary attainment than among high school graduates. This is due again to the fact that this group of women is more likely to attend school full-time. The most significant difference in participation rates is between women with five or more years of college education, and those whose attainment is lower. More than four out of five women age 25-54 who completed five years of college participated in the labor force. By contrast, less educated women in this age range reported participation rates in the mid-60 percent range. (See Table 6.)

TABLE 6.--Female labor force participation rates in 1975 by age by selected levels of educational attainment (percent)

		Total	Full-Time	ILF/ Full-Time Full-Year	Number (thousands)
H4	18+	62.3	43.1	33.4	30,037
	18-24	81.3	55.5	37.5	6,196
	25-34	65.5	50.5	35.0	6,981
	35-44	65.8	44.7	36.9	5,347
	45-54	63.3	45.1	38.4	5,233
	55-64	51.6	36.8	40.3	3,653
	65+	16.1	7.0	4.9	2,676
C1-C3	18+	68.5	43.5	31.0	12,377
	18-24	87.1	48.7	25.5	3,633
	25-34	72.1	50.9	39.2	3,099
	35-44	66.9	42.1	34.5	1,709
	45-54	68.2	47.6	40.7	1,561
	55-64	59.7	43.3	36.6	1,117
	65+	17.4	8.5	5.1	1,246

TABLE 6.(Cont'd)--Female labor force participation rates in 1975 by age by selected levels of educational attainment

(percent)

		Total	Full-Time	ILF/ Full-Time Full-Year	Number (thousands)
C4	18+	68.4	48.3	32.3	5,732
	18-24	91.1	62.0	33.1	1,049
	25-34	77.2	58.3	41.3	1,978
	35-44	66.0	39.8	26.7	915
	45-54	68.2	50.9	36.5	668
	55-64	54.7	43.5	31.3	510
	65+	15.5	7.2	3.8	612
C5	18+	79.4	61.3	32.0	2,897
	18-24	91.5	53.1	26.0	177
	25-34	87.6	67.5	42.0	1,041
	35-44	83.5	60.4	41.6	566
	45-54	87.1	71.3	45.7	481
	55-64	76.2	65.0	45.7	354
	65+	23.7	15.4	8.6	278

Source: Special tabulations of the SIE.

Many college-educated women are employed as teachers, a number of whom were coded as working only part of the year. The women who were in the labor force full-year full-time and those women who reported teaching full-time were grouped together to calculate new ratios for persons with a high level of labor force commitment. (See Table 7.) The inclusion of full-time teachers adds eight percent to the previously reported proportion of women with a college education who are in the labor force full-time, full-year. In the case of women with five years of education, this proportion roughly doubles, from 32 to 61 percent.

TABLE 7.--Percentage of women college graduates in the labor force full-time/full-year, plus full-time/part-year teachers

		Age					
	Total	18-24	25-34	35-44	45-54	55-64	65 and over
C4	40.6	40.4	51.6	33.6	46.1	41.3	4.7
C5	61.3	30.5	58.5	56.7	65.9	64.6	13.3

Source: Special tabulations of the SIE.

Hours offered per year and education. Another simple measure of the difference in commitment to work for persons with different levels of education is shown in Table 8. The table shows the number of hours of work offered by various groups of workers--calculated as a product of the number of weeks in the labor force and the usual hours of weeks worked. The estimated yearly hours worked for any group is less, since it is decremented by the amount of time spent looking for work.

TABLE 8.--Estimated average number of hours in labor force per year by age, sex, and level of education

		Total	18-24	25-34	35-44	45-54	55-64	65+
Male	Total	1,845	1,600	1,997	2,078	2,337	1,964	1,339
	H4	1,916	1,745	2,059	2,104	2,063	2,014	1,356
	C1-C3	1,675	1,329	1,970	2,116	2,154	1,897	1,061
	C4	1,742	1,459	1,828	2,072	2,085	1,954	1,052
	C5	1,728	1,248	1,739	1,923	2,241	2,000	1,162
Female	Total	1,364	1,235	1,415	1,459	1,473	1,557	1,181
	H4	1,397	1,316	1,425	1,447	1,479	1,591	1,432
	C1-C3	1,282	1,143	1,426	1,388	1,425	1,625	1,292
	C4	1,392	1,356	1,446	1,272	1,575	1,401	772
	C5	1,345	1,182	1,401	1,302	1,311	1,481	943

Source: Special tabulations of the SIE.

In the aggregate, males with some college education are likely to be offering fewer hours than those who have not completed one year of postsecondary education. The most significant differences occur under age 25, when a considerable number of males are still enrolled as full-time students. By age 35-44, when the number of full-time students in the total population is negligible, the number of hours offered is roughly equal for all males.

The pattern for females is more confusing. Between the ages of 25-34, the number of hours of work offered by females does not vary significantly by level of education. Between the ages of 35 to 44, less-educated females are likely to offer more hours. Women with four years of college are likely to offer more hours in the 45-54 age group. Women with five or more years of college, and those with either a high school or incomplete college education, report more hours offered in the 55-64 age group, at which point the proportion of women who work declines. It would be attractive to hypothesize that women with a stronger work commitment continue to work until they are older, but this hypothesis is not supported by the statistics dealing with women with more years of education. The peak in number of hours offered occurs when they are 25-34, when their participation in the labor force does not decline.

The most likely explanation for the generally rising number of hours of work offered as women become older is the reduction of pressures from mothering and household duties.

To some extent, the participation of women in the labor force is caused by the pressures on older women to maintain family income. Among women over age 65, average hours offered drop sharply, except among the least educated and, presumably, the poorest.

Unemployment and postsecondary education.

The Survey of Income and Education contains information on the incidence and length of unemployment in both 1975 and 1976. Unfortunately, neither measure is comparable to the statistics of the Bureau of the Census, which publishes the ratio of persons looking for work during the week prior to a survey to the total number of persons in the labor force. The 1975 figures in the SIE report the number of weeks looked for work during that year. The 1976 figures show the employment experience of persons in the labor force in the week prior to the interview, but since the SIE was conducted over a period of four months, these figures are not comparable to those collected by the CPS.

In this section, we present data on the proportion of persons who reported looking for work for one or more weeks in 1975, by level of educational attainment. The rate of unemployment is calculated by aggregating the number of weeks spent looking for work and dividing them by the number of weeks in the labor force. The aggregate level of unemployment for all workers 18 years and older, 7.8 percent, is virtually identical to the unemployment rate for this group published

by the U.S. Bureau of the Census. It gives us confidence that the computed unemployment rate is comparable to the probability of being unemployed in any single week in 1975.

Unemployment by education. The overall incidence of unemployment, the percentage of persons in the labor force who reported looking for work one or more weeks, was roughly equal for men and women. (See Table 9.) Once the data are disaggregated by level of education, however, the incidence of unemployment for women with either some college or four years of college education are considerably higher than those for men. For both sexes, the proportion of workers experiencing unemployment declines as educational attainment increases.

TABLE 9.--Percent of workers, age 18 and over, who experienced one or more weeks of unemployment in 1975, by educational attainment and sex

	Total	High School	C1-C3	C4	C5
Total	18.3	19.1	15.9	12.6	8.7
Male	17.6	18.9	15.6	10.8	7.1
Female	19.2	19.2	16.2	15.3	12.2
		Number With Unemployment (thousands)			
Total	18,540	7,414	3,037	219	635
Male	10,166	3,804	1,660	618	354
Female	8,374	3,610	1,377	601	281

Source: Special tabulations of the SIE.

Workers with education beyond high school reported shorter periods of time spent looking for work than did those with less education. This advantage was slightly less pronounced for women with four or more years of college than for

men. (See Table 10.)

TABLE 10.--Mean weeks looking for work in 1975 by persons 18 years or older, by educational attainment and sex

	Total	High School Graduates	C1-C3	C4	C5
Total	3.49	3.61	2.56	1.96	1.42
Male	3.56	3.72	2.66	1.82	1.21
Female	3.39	3.48	2.43	2.18	1.89
		Number in Labor Force in 1975 (thousands)			
Total	101,349	38,865	19,149	9,662	7,289
Male	57,658	20,098	10,660	5,742	4,986
Female	43,691	18,767	8,489	3,920	2,303

Source: Special tabulations of the SIE.

Women spent a higher proportion of their time in the labor force looking for work. The disparities in the proportion of time spent were especially pronounced in the case of women with four or more years of college education. (See Table 11.)

TABLE 11.--Percentage of weeks in the labor force looking for work in 1975 by persons age 18 and over, by sex and educational attainment

	Total	H4	C1-C3	C4	C5
Total	7.8	7.9	5.9	4.3	3.1
Male	7.5	7.6	5.9	3.8	2.5
Female	8.2	8.2	6.0	5.2	4.4

Note: For numbers, see Table 10.

Source: Special tabulations of the SIE.

Unemployment, education of full- and part-time workers. Workers who reported usually working full-time had substantially lower proportion of weeks looking than workers who worked part-time. (See Table 12).

TABLE 12.--Percentage of time in the labor force spent looking for work by persons 18 years and over by education, sex, and class of worker, 1975

	Total	High School Graduates	C1-C3	C4	C5
	Full-Time Workers				
Both Sexes	5.6	5.9	4.5	3.1	1.9
Male	5.5	5.9	4.5	2.7	1.6
Female	5.9	5.9	4.4	3.8	2.6
	Part-Time Workers				
Both Sexes	18.4	18.9	11.7	12.4	12.4
Male	26.6	30.9	15.8	18.3	13.7
Female	14.2	14.8	9.5	9.6	11.3
	Full-Time Full-Year in Labor Force				
Both Sexes	5.6	5.8	4.3	2.9	1.8
Male	5.4	5.7	4.3	2.5	2.5
Female	5.9	5.8	4.2	4.0	2.6

Source: Special tabulations of the SIE.

Once the unemployment rate (defined here as the ratio of number of weeks spent looking for work to number of weeks in the labor force) is disaggregated by both sex and full-time and part-time workers, a new insight is provided into the patterns of female unemployment. The unemployment rate of females who usually work full-time is not substantially higher than that of males, and the unemployment rate of female part-time workers is substantially lower than that of males. Therefore, the

reason for the generally higher rate of female unemployment is the higher proportion of women who work part-time.

Unemployment by age, job establishment and education. The unemployment rate for men declines significantly after age 29. By contrast, the female rate, for full-time/full-year in the labor force workers, does not drop till age 35. As long as women enter and leave the labor force due to family pressures, they are subject to a continuous employment disadvantage typical of years during which people establish themselves in the world of work. (See Table 13.)

TABLE 13.--Percentage of weeks in the labor force spent looking for work in 1975: persons aged 18 and over by attachment and sex

	All Workers			In Labor Force Full-Time Full-Year	
	Total	Male	Female	Male	Female
Total	7.8	7.5	8.2	5.6	5.9
18-24	13.8	15.0	12.5	11.3	9.7
25-29	9.2	9.6	8.5	7.1	6.1
30-34	7.0	6.1	8.7	5.0	6.1
35-44	6.0	5.2	7.2	4.2	5.3
45-54	5.2	4.8	5.8	3.6	4.4
55-64	5.1	4.9	5.4	3.7	4.0
65 and older	5.0	5.1	4.8	3.8	3.8

Source: Special tabulations of the SIE.

The benefits of additional education, measured in terms of a reduction in the proportion of the time in the labor force spent looking for jobs, are illustrated in Table 14. A special tabulation of all workers, not enrolled in college full-time in 1976, who usually worked full-time and spent at least 48 weeks in the labor force in 1975, shows the decline in the percentage of weeks spent looking for work as educational attainment increases. The proportion of time that male high school graduates spent looking for work was roughly half that of dropouts. In the case of women, the proportion of time that high school graduates spent looking for work was roughly one-third of the time spent by dropouts. There are quite large advantages, too, for persons with some college or four years of college education. The percentage of time spent looking for work is at least one-third less for men and women who attended college than for high school graduates. Young workers with five years of education beyond high school had the lowest proportion of time spent looking for work at age 22-24, the years they were most likely to be entering the labor market for the first time.

TABLE 14.--Percent of time in labor force spent looking for work during work establishment years

	Non-Students Full Year in Labor Force					
Both Sexes	All	Less Than H4	H4	C1-C3	C4	C5
18-19	16.4	26.5	11.6	9.3	3.2	-
20-22	11.6	21.3	10.7	6.7	7.5	11.6
23-24	8.6	15.4	8.9	6.6	5.9	4.6
25-29	6.7	14.0	8.0	4.8	3.3	3.3

TABLE 14.(Cont'd)--Percent of time in labor force spent looking for work during work establishment years

	Non-Students Full Year in Labor Force					
	All	Less Than H4	H4	C1-C3	C4	C5
Male						
18-19	18.0	25.6	13.0	11.3	-	-
20-22	12.9	20.6	12.0	7.1	8.8	a
23-24	9.5	15.0	10.1	7.4	5.2	4.1
25-29	7.1	14.9	8.2	5.2	3.3	3.5
Female						
18-19	13.8	29.2	9.8	4.8	a	-
20-22	9.8	24.2	9.0	6.3	6.7	5.7
23-24	7.3	16.5	7.3	5.5	6.6	5.1
25-29	6.0	11.5	7.6	3.8	3.3	3.0

a Less than 20,000.

Source: Special tabulations of the SIE.

There was less difference in the proportion of time spent looking for a job by females 23-24 who had not completed college, and those who had. Apparently, the souring of the teaching market, where most females with college degrees found jobs, is being reflected in these figures.

Summary

The effects of additional years of education upon earnings are translated in a variety of ways: less unemployment, higher wages for older workers, and the ability to command higher earnings while working fewer hours. In 1975, the proportion of persons in the labor force, even among women, was not affected drastically by the number of years of education beyond high school, with the exception of women with five or more years of education.

The necessity to take all these factors into account in evaluating the effects of additional education upon earnings makes it impossible to present meaningful statistics about the effects of education on the earnings of minorities and other target groups of interest to the federal government, in tabular form. Table 6 in the Technical Note shows the weighted number of persons in the labor force, by level of education, among target groups. In most categories, the small number of workers in an age/education group, less than 50 thousand, makes it impossible to present statistically meaningful comparisons.

PART II

A statistical analysis of the effects of education on earnings.

The first part of the paper documented the impact of education on earnings. It was pointed out that the earnings of workers with different levels of education vary by age and sex, and also by whether they work full-time/full-year or have a lesser commitment in the labor force. The challenge of tracing the effects of schooling and the way they interact with other variables can be met by the use of regression equations which take these factors into account.

This part of the paper examines the effect of education on earnings, using a variety of regression techniques or models. These different models make various assumptions about the factors which affect the level of earnings of workers with different levels of education. The simplest of these models is discussed first. It attempts to explain differences in the earnings of full-time/full-year workers as a function of their level of schooling, their experience, the number of hours worked, and whether they live in the South. The effects of belonging to a minority, i.e., being Black or Hispanic, or membership in a target group such as handicapped or non-English language background minority, are also estimated.

A second model attempts to pinpoint the differential impact of grade school and postsecondary education upon earnings. This impact is measured for all workers, whites, minorities and for each one of the target groups.

The third model takes into account the amount of schooling, weeks worked, hours worked, the effect of public employment, and that of experience. The effects of education for persons with different levels of experience, using this model, as well as the effects of education for all persons, are discussed at length below.

Finally, a fourth model attempts to estimate the impact of education on earnings by major occupational groups: professionals and managers, clerical workers, service workers, blue-collar workers, and farmers. It takes into account both the experience and the education of persons in the labor force in 1975.

The rationale for selecting each one of these models is discussed below, together with the results of the analysis. A final section then discusses the relevance of the findings to public policy.

Technical digression.

The statistical analysis below was run using unweighted observations of the Survey of Income and Education.[4] Certain records were excluded. All records with imputed earnings were omitted from the analysis because it made little sense to base estimating equations upon imputed data. Second, records were edited for consistency. Persons with earnings had to report working for at least 200 hours a year. Those who worked less than on week were excluded. At the other extreme, all persons who reported working more than 3,120 hours a year, i.e., 60 hours

a week, were also excluded. Full-time students were also excluded.

Even after reducing the sample along the lines mentioned above, we found a great deal of variability in the number of hours worked by workers who could be considered to be full-time/full-year in the labor force. The criteria for the inclusion of such workers was presence in the labor force for 48 weeks or more during the year and a reported work week of 35 hours or more. For males in this category, the mean hours worked were 2,226, and the standard deviation was 322. For females, the mean hours were 2,096 and the standard deviation was 207 hours. Thus, even among full-time/full-year workers one can expect some variability in earnings, depending upon the number of hours worked.

Model 1: Schooling, experience, annual hours, southern residence, and target groups.

One of the simpler models for estimating the impact of education on earnings takes into account the years of schooling, the experience, the number of annual hours worked, and whether the worker lived in the south or in some other region. We ran this model for full-time/full-year workers, for all males and females, and for three groups of workers by sex, by level of educational attainment. These three groups were persons with less than a 9th grade education, persons with 9-12 years of education, and those with 13 years or more. The results of these regressions appear in Table 1.

TABLE 1.--Model 1 regression of earnings of full-time full-year workers as a function of schooling, experience, southern residence and target group

	Male				Female			
	All	Less 9	9-12	12+	All	Less 9	9-12	12+
Intercept	-10.3832	.4941	-6.6073	-16.916	-5.8133	4.4117	-3.138	-12.1589
Schooling	.9958	.3476	.7392	1.273	.6994	.1359	.5511	1.041
Experience	.5823	.3971	.5599	.8413	.1518	.0841	.1570	.2541
Experience^2	-.0091	-.0056	-.0094	-.0151	-.0023	-.0011	-.0027	-.0048
Annual Hours	.0023	.0008	.0021	.0026	.0015	.0016	.0011	.0019
South	-.3086	-1.3285	-.7328	.1827	-.1934	-.6018	-.4257	.9965
Black	-1.5537	-1.1810	-1.7964	-2.0890	.5868	.1271	.4236	.7990*
Hispanic	-.5596	-.8557	-.830	-1.141	-.2093	-.1942*	-.4310	-.4337*
Handicapped	-.2757*	-.0321	-.549	-.704	.3079	.1771*	.0889*	-.1361*
NELB	-1.763	-1.406	-1.665	-2.143	-.7413	-.7063*	-.6986	-1.092
R^2	.2713	.0964	.1859	.2528	.2079	.0442	.0658	.2206
Average Earnings	$13,604	$10,176	$12,309	$16,341	$7,742	$5,504	$7,052	$9,433

*not significant at 5 percent level.

Source: Special tabulations of the SIE.

Note: Experience = Age - (years of school completed + six)

It should be noted that the dependent variable in Table 1 is earnings in thousands of dollars. Thus the effects of schooling can be easily read off from the table. It was estimated that schooling added $996 per year to the incomes of males and $699 per year to the earnings of females.

It is also interesting to note that the incremental addition to earnings for a year of schooling increases as the level of schooling increases. For instance, in the case of males, each year of schooling below the 9th grade added $348 to their earnings, whereas one year of postsecondary education added $1,273. In the case of women, the differences were even more pronounced. A year of grade school education was worth $136, as contrasted to $1,041 for one year of postsecondary education.

The other notable finding is that southern residence depressed earnings both for males and for females who had not attended a postsecondary institution. However, living in the south provided a slight earnings advantage to persons with some postsecondary education.

The equation also estimates the earnings disadvantage of Blacks, Hispanics, the handicapped, and non-English language background workers. The highest handicap was borne by Black males and the least by handicapped workers. The estimates for the handicapped workers should be treated cautiously, since it is unlikely that seriously handicapped workers are capable of working full-time/full-year. In the case of women,

non-English langauge background persons and Hispanics were most disadvantaged. Other target groups appeared to earn more than the average.

We would like to stress that the results of this model should be taken with caution. Most models which related earnings to the above variables show much closer correlation between the natural log of earnings and the schooling, experience, etc. In the case of our data set, the regression equations for earnings showed higher R^2 for income, and not natural log of earnings. (The results of the two sets of equations are compared in the appendix.) The percent of variance explained was a maximum of 27 percent in the case of all males. In the case of all females, it was 21 percent.

Model 2: Contribution of various levels of education to earnings.

Another popular way of trying to estimate the contribution of education to earnings is to build an equation which allows the coefficient for the contribution of education to earnings to vary, depending upon the highest level attended. Since this study was originally conceived to focus upon the effects of postsecondary education, the second model estimates for all workers the contributions to earnings of the first 12 years of education and that beyond the 12 years. It follows a model proposed by Welch and includes the following variables: The natural log of weeks worked, experience, experience squared, a dummy variable to indicate whether the worker was employed by a public authority or by private enterprise, and another dummy for those

persons with zero earnings. The schooling experience is divided into two segments, the first for 0-12 years of education, the second for years of postsecondary schooling. A worker who attended college has a grade school variable of 12. A "spline" function is segmented to permit slope coefficients which differ for the two segments, but the segments are constrained to join at 12 years. Table 2 shows the results of this model for all males and all females, as well as for Whites, Blacks, Hispanics, Handicapped, and Non-English Language Background workers. The coefficients of the contribution of education are shown in that table.

These coefficients are translated into dollar amounts at the mean earnings. To be noted is the difference in the ratio of the contribution of an additional year of education as a percent of the mean earnings. In the case of males, a year of education below college contributes 6.4 percent to earnings, while a year of postsecondary education adds 8.6 percent to the mean. In the case of women, the contribution of a year's pre-college education is 4.5 percent, and that of a year's college education is 19 percent. It is interesting to note that the absolute values of a year of college education are about equal for men and women.

If one examines the experience of various target groups, one notes that the contribution of the first 12 grades of schooling to these groups' earnings is much less in absolute terms than for whites. On the other hand, in the case of males

TABLE 2.--Exponents for schooling components and value of additional year of schooling at mean earnings of elementary and secondary (Sch1) and postsecondary education (Sch2) total and by target groups and sex

	All	White	Black	Hispanic	Handicapped	NELB
			Male			
Sch1	.067296	.067825	.05666	.047812	.068819	.044785
Sch2	.087844	.086865	.102722	.090887	.087723	.091210
R^2	.5701	.5715	.5831	.6280	.4294	.4945
			Value in Dollars at Mean			
Sch1	533	588	346	303	440	377
Sch2	714	761	673	643	567	786
			Female			
Sch1	.052857	.053425	.055579	.025192	.062191	.027796
Sch2	.101722	.100612	.128136	.102168	.088198	.104194
R^2	.6314	.6323	.6610	.6889	.5110	.5935
			Value in Dollars at Mean			
Sch1	197	242	222	81	166	106
Sch2	688	806	529	341	239	413

Note: Based on equation: Natural Log Earnings = Intercept + Sch1 + Sch2 + Log Weeks Worked + Zero Income + Pub Employee + Experience + Experience Squ. (See Appendix)

Source: Special tabulations of the SIE.

the differences for the year of postsecondary education are much narrower. In the case of women, Blacks come closest to the level of benefits from postsecondary education received by whites. The other target groups' additional earnings from one year of postsecondary education is much less--about one-half in the case of Hispanics and non-English language background minorities, and a little over a quarter for the handicapped.

We considered these results somewhat more significant than those of model 1, especially for all persons, whites, Blacks and Hispanics. Roughly 60 percent of the variance in earnings is explained by that model. The regression explains as much as we could expect, since background variables such as intelligence and the social status of parents, not available in this data set, do play a considerable role in determining the final levels of earnings and should account for some of the unexplained variance.

Model 3: Schooling, weeks worked, public employment, experience, and annual hours.

In our review of the literature we were impressed with the results obtained by Welch and Smith,[5] who used a model including years of schooling, weeks worked, public employment, proportion of goods provided to public authorities by an industry in which the worker was employed, experience, and the proportion of persons who reported no earnings. In some of their later work, Smith and Welch[6] also included the region of the country as an explanatory variable.

After running some preliminary regressions, we decided to limit ourselves to fewer variables than Welch and Smith. The addition of a variable for zero earnings did not improve the correlation noticeably (see Appendix), and made the results moot for a number of experience groups where no members with zero earnings were present.

We also believe that the Welch and Smith equation was misspecified since it explained 90 percent of the variance without taking into account either the workers' background or their intelligence. The variable which, in our opinion, caused this extremely high correlation was an estimate industry by industry of the proportion of output sold to government. We decided to eliminate it.

Since we were most interested in explaining the differences between the earnings of whites and target groups, we did not use any regional terms in our explanatory equation, for preliminary regressions using these terms did not add to the explanatory power of the regressions.

On the other hand, we believe that the estimate of annual hours derived by multiplying weeks worked by usual hours per week is a legitimate entry which explains earnings. By using this term we managed to explain roughly 60 percent of the variance for whites, Blacks, and Hispanics, and between 40-55 percent of the variance for the handicapped and the non-English language background minorities.

The third model uses the following explanatory

variables: schooling, logarithm of weeks worked, annual hours, a dummy variable for public service employees, and experience and experience squared. Experience is arbitrarily defined as age less (years of schooling plus six). The highest correlations were obtained when the independent terms were set as the natural log of earnings. They are reported below, and discussed in considerable detail.

First we present the results for all persons with work experience. Second, we discuss the magnitude of different coefficients in relation to the experience of persons in the labor force. Third, we present a comparison of the impact of schooling on earnings at the very beginning of careers, for workers with less than five years' experience. Finally, we present an alternative set of estimates of the impact of experience upon the earnings of women. In this particular exercise, we differentiate between women who have never been married and have no related child present, women who have never married but do have children present, married women with no children present (it is possible that the children of these women may have left home), and married women with children present.

Table 3 shows the coefficients for schooling by sex for all the workers, whites, Blacks, Hispanics, handicapped and non-English language background minorities. It also displays the value of an additional year of schooling at the mean earnings for each one of those groups.

It is worth noting that Black and white schooling

TABLE 3.--Coefficients of schooling and value of additional year of schooling at mean earnings total and by target group and sex

	Male					
	All	White	Black	Hispanic	Handicapped	NELB
Coefficients	.07913	.0796	.07216	.0592	.0769	.0628
R^2	.5694	.5704	.5859	.6288	.4299	.4910
Value of additional year ($)	631	693	441	376	457	532
	Female					
Coefficients	.0794	.0804	.0892	.0422	.0700	.0536
R^2	.6055	.6038	.6563	.6685	.4981	.5497
Value of additional year ($)	225	301	358	135	186	207

Note: Based on

Natural Log Earnings = Intercept + Schooling + Log Weeks Worked + Annual Hours + Public Employment + Experience + Experience^2

Source: Special tabulations of the SIE.

coefficients are quite close and that there is little difference between the schooling coefficients for the handicapped and for whites. Those for male Hispanics and non-English language background minorities are quite a bit lower.

The value of those coefficients at the mean earnings is not necessarily proportional to their size. Thus, an additional year of school was worth $693 for each white male and

only $441 for each Black male. In the case of women, the respective values were $301 and $358 each. In the concluding part of the study, where we shall evaluate the effects of unemployment and experience on different groups' earnings levels, we shall return to these disparities.

The magnitude of schooling coefficients was examined by disaggregating the sample of workers by level of experience. The model was run separately for workers with one to five years of experience, six to ten, eleven to fifteen, sixteen to twenty, and twenty-one years of experience or more. We found that experience and experience squared are not significant for those groups with more than five years' experience. Apparently, small increments of experience do not affect wages for older workers. The results discussed in this report, for the five groups by level of experience, are based on a model where the experience variable was excluded. (In the Appendix we reproduce regression equations of the original model 3 and those without the experience variables.)

The coefficient of schooling in these regression equations generally declines as workers become older. These coefficients are reproduced in Table 4 for all workers, for whites and for the target groups. Two features of the table deserve mention: (1) the schooling coefficients are higher for workers with less than five years' experience, and lower for older workers, and (2) the schooling coefficient remains quite high for handicapped workers with less than 20 years'

TABLE 4.--Schooling coefficients and contribution of additional year of schooling by experience groups

Experience:	1-5 Yrs.	6-10 Yrs.	11-15 Yrs.	16-20 Yrs.	21+ Yrs.
			Male		
Whites	.1203	.0793	.0845	.0857	.0700
Blacks	.1359	.1183	.0849	.0967	.0511
Hispanics	.1225	.0893	.0642	.0663	.0443
Handicapped	.1206	.1124	.1032	.1064	.0694
NELB	.1218	.0851	.0669	.0694	.0566
			Female		
Whites	.1225	.0770	.0702	.0770	.0618
Blacks	.1261	.1227	.0993	.1005	.0718
Hispanics	.0953	NS	.0504	.0430	.0342
Handicapped	.1366	.0895	.1273	.1033	.0524
NELB	.1109	.0717	.0712	.0441	.0414
			Male		
Whites	$558	$768	$1018	$1113	$795
Blacks	409	850	739	785	381
Hispanics	397	886	529	556	728
Handicapped	375	967	812	865	503
NELB	472	722	661	755	802
All R^2	.6646	.3506	.2516	.2855	.2820
			Female		
Whites	$409	$252	$ 279	$ 301	$269
Blacks	370	603	533	513	289
Hispanics	332	NS	195	290	129
Handicapped	319	270	359	442	146
NELB	346	292	311	177	172
All R^2	.7181	.6078	.5970	.5857	.4775

Source: Special tabulations of the SIE.

experience.

The dollar amount of an additional year of education is evaluated at the mean earnings for each of these groups in the second part of the table. Since the average earnings of target groups with less than five years' experience are lower than those of whites, it appears for that group that, on the average, an additional year of education results in smaller gains in earnings. By contrast, among workers with six to ten years' experience, an additional year of education pays off more for the target groups than for the whites.

This particular series of runs produces two other results which are interesting. The first one is that the coefficients for education are roughly equal for men and women, a condition which holds true both for whites and for the target groups. The second one is that the explanatory equations are much less powerful for persons who have more experience than for those at the outset of their career--the R^2 are lower. For those who have been working longer, other factors besides schooling, public employment, hours and weeks worked, appear to play a role in determining earnings.

The other variables in the model used to predict the level of earnings need some comment as well. The most intriguing, from the point of view of federal policy makers, is the coefficient associated with employment by federal,

state or municipal employers. It is either small or not statistically significant, or both, in the equations for male workers. By contrast, it is both high and significant for all women workers, whites, Blacks and target groups. It is equal to five percent of their earnings, when evaluated at the mean wages of all women. Only Hispanic women appear not to benefit from public employment; for them the coefficient is not significant, and much smaller, than that for other groups of female workers (Table 5).

TABLE 5.--Coefficients of public employment for females, and percent employed by public employers for all workers, minorities and target groups

	All	White	Black	Hispanic	Handicapped	NELB
Coefficient	.2173	.2152	.2029	.0976*	.2784	.1707
Percent in public employment	18.1	18.0	32.1	19.0	18.1	18.7

*not significant at 5 percent level.
Source: Special tabulations of the SIE.

Two other coefficients describe the degree of attachment to the labor force, the natural logarithm of weeks worked and the number of hours worked. The first of these coefficients is higher for men than for women. A clue to the reason for these differences is to be found in the coefficient for the number of hours worked, which is twice as high for women as it is for men. The fact that the majority of men worked full-time (their mean hours of work per year were 1,936, compared

to 1,497 hours for women) appears to influence the results (Table 6).

Finally, the coefficients for experience differ quite radically for men and women, and for majority and minority groups. The effect of experience on earnings is represented by two coefficients. One is experience in years; the second is the square of experience, a coefficient one expects to have a negative sign (this form is adopted because wages grow faste in the earlier years of a person's career). It is easier to illustrate the impact of experience on earnings for various groups by combining the values of these two terms. This is done in Table 7 for workers with 19 years of experience, the average experience of workers in this sample.

It will be observed that the coefficient for male Blacks and Hispanics is roughly two-thirds that of whites. The one for male handicapped and NELB workers is roughly midway between that of Blacks and Hispanics and whites. At 19 years' experience, the differences in the contribution of experience are greater than the differences in the natural log of earnings between the majority, minorities and target groups. It can be argued that non-whites and target groups do not benefit from the same promotion opportunities as the majority.

In the case of women, the coefficients are much lower, and the value of experience for persons 19 years out of school does not favor whites. Minorities have higher values than whites.

TABLE 6.--Coefficients of the natural logarithm of weeks worked, and the number of hours worked

	Male					
	All	White	Black	Hispanic	Handicapped	NELB
Natural Logarithm Weeks Worked	.6426	.6439	.6477	.6639	.3874	.7067
Hours Worked	.0004261	.0004159	.0004984	.0005199	.0005664	.0003718
	Female					
Natural Logarithm Weeks Worked	.2932	.2870	.3827	.3453	.1641	.3035
Hours Worked	.0008548	.0008592	.0007911	.0007687	.0008757	.0007797

Source: Special tabulations of the SIE.

TABLE 7.--Coefficients of experience and experience^2 evaluated at 19 years

	Male					
	All	White	Black	Hispanic	Handicapped	NELB
Experience	.064988	.067490	.044528	.045919	.050156	.054190
Experience^2	-.0010741	-.0011303	-.00066045	-.00067143	-.00073703	-.00082300
Total at 19 Years	1.2144	1.2608	.8209	.8332	.9389	1.0140
	Female					
Experience	.020679	.020255	.021811	.02339	.016277	.018396
Experience^2	-.00034771	-.00033644	-.0003922	-.00037521	-.00023357	-.00028214
Total at 19 Years	.3268	.3784	.4069	.4373	.3048	.3442

Source: Special tabulations of the SIE.

The model was further modified to introduce dummy variables to calculate different coefficients for the experience of women, depending upon their marital status and the presence of children in the home. New coefficients for experience were estimated for four groups of women: (1) women who were never married and had no related children living in the household, (2) women who were never married, but did have related children, (3) ever married women with no related children, and (4) ever married women with related children.

This exercise was motivated by our observation that experience calculated in the conventional manner did not contribute a significant amount to the explanatory equations of women's earnings. We were also concerned by the fact that the coefficients of experience for women were much lower than those for men. This not unexpected finding is due partly to the lower proportion of women likely to be found in the labor force at any one time. While more than 90 percent of males who are not enrolled in school are in the labor force in any given year, the proportion of women is likely to be roughly 60 percent. Thus, by using the same methodology to estimate both male and female experience while female experience is actually lower, we were likely to get a lower coefficient for females.

Since labor force participation rates are highest among women who were never married and do not have children, we expected that once the sample was disaggregated, we would

find higher coefficients for experience. This is actually the case, and the results are displayed in Table 8.

TABLE 8.--Female experience equations disaggregated by marital status and presence of children for log earnings

	All	White	Black
All Males			
$Experience_2$	.0650	.0675	.0445
$Experience^2$	-.0011	-.0010	-.0070
All Females			
$Experience_2$	.0207	.0203	.0218
$Experience^2$	-.0003	-.0003	-.0004
Females By Group			
Never Married, No Children			
$Experience_2$	.0377	.0381	.0293
$Experience^2$	-.0007	-.0007	-.0006
Never Married, Children Present			
$Experience_2$	.0215	.0196	.0179
$Experience^2$	-.0004	-.0004	-.0004
Married No Children Present			
$Experience_2$	.0262	.0267	.0224
$Experience^2$	-.0005	-.0005	-.0004
Married, Children Present			
$Experience_2$	.0215	.0211	.0247
$Experience^2$	-.0005	-.0004	-.0005
R^2	.6071	.6060	.6575

Source: Special tabulations of the SIE.

There was a sufficient number of observations for Blacks and whites to allow us to estimate coefficients for these two groups separately. The coefficient for experience for Black married women with children turned out to be higher than that for white married women with children, since Black women are more likely to work even when their children are young.

It is unfortunate that this exercise neither proved nor disproved that there is discrimination in the promotion of women with continuous work experience. Childless unmarried women with 19 years of experience added .7662 to their earnings, contrasted to 1.2144 for men. It is possible that even unmarried women are less likely to work or seek work than men.

Model 4: Contribution of schooling, by occupation.

The fourth model is a slight modification of model three. The contribution of schooling was estimated for all workers subdivided into five occupational groups separately by introducing dummy variables for both experience and schooling. The five occupational groups are: (1) professional, technical and allied workers, managers and administrators, (2) other white-collar workers, i.e., sales and clerical workers, (3) all blue-collar workers, a category which includes craftsmen, operative, transport workers, and non-farm laborers, (4) service workers, and (5) farmers, farm managers and laborers. Table 9 shows the coefficients for schooling, as well as the value of an additional year of schooling at the mean level of earnings. (These are labeled R in Appendix tables.)

The results of this analysis lead one to two sets of conclusions. The first, relating to the economy as a whole, that a dearth of high-caliber jobs in category one is likely to produce a decline in the returns from education. The second conclusion is that the returns from schooling to minority groups and women, in dollar terms, are depressed across all occupational groups. Hispanic males' increments to earnings are roughly half those of white males across the first four groups. In the case of Black males, the additional earnings is roughly two-thirds of that of white males for the first three groups, about three-quarters for the fourth group, and half for the fifth group. It is also interesting that the increments are not lower for Black females than for Black males.

In the course of a person's career, the impact of educational attainment on incomes is reinforced by the increments ascribed to experience. (Labeled Q in Appendix tables.) The group of professional and managerial occupations, populated preponderantly by college graduates, has higher coefficients than that for other groups. The lowest experience coefficients are for the service and farming groups, where the median educational attainment is lowest.

TABLE 9.--Coefficients and value of additional year of education at mean earnings by occupation group

	Coefficients											
	Male						Female					
	All	White	Black	His-panic	Handi-capped	NELB	All	White	Black	His-panic	Handi-capped	NELB
Group 1	.0988	.0988	.0914	.0695	.1009	.0742	.0847	.0844	.1048	.0661	.0913	.0665
Group 2	.0854	.0852	.0783	.0543	.0895	.0548	.0688	.0682	.0852	.0424	.0754	.0427
Group 3	.0926	.0923	.0824	.0635	.0919	.0611	.0706	.0690	.0946	.0399	.0799	.0373
Group 4	.0583	.0563	.0619	.0378	.0453	.0352	.0376	.0345	.0698	.0174	.0465	.0234
Group 5	.0507	.0502	.0345	.0263	.0525	.0292	.0246	.0222	.0532	.0313	.0067	.0043
R^2	.5257	.5241	.5630	.5974	.4088	.4675	.5304	.5308	.5877	.6196	.4122	.5109
Group 1	$846	$867	$548	$445	$651	$631	$320	$317	$423	$216	$245	$257
Group 2	726	743	467	345	574	462	258	254	341	137	201	163
Group 3	791	808	492	406	590	517	265	257	387	129	213	142
Group 4	489	483	366	240	284	294	140	128	237	56	122	88
Group 5	423	430	201	166	330	442	90	81	213	NS	NS	NS
Mean Income	$8156	$8364	$5720	$6170	$6137	$8201	$3947	$3597	$3832	$3146	$3750	$2572

Source: Special tabulations of the SIE.

NS Not significant.

How important is education?

The various models presented above show that education plays a different role in determining earnings for males and females, and majority, minority and target group workers. Education also contributes more to the earnings of workers in high-status occupations.

There is another way to look at the results. We could ask, given the way the labor market works, what kind of earnings would be forecast by our models if the individual characteristics of target groups were no different from each other, i.e., if all males, both majority and minority, had the same level of education, worked the same number of weeks per year and hours per year, had the same amount of experience, etc.

The "system," is represented below by the coefficients of the variables for each individual group. The first model did not produce any surprises. As expected, it shows that both Black and Hispanic workers were at a disadvantage in obtaining earning parity with whites when education and experience were held constant. Whether this disadvantage was due to the effects of discrimination or to a lower quality of education is not made clear by the model.

The second model examines the effects on earnings of elementary and secondary education, on the one hand, and to postsecondary education on the other hand. It shows that the percentage contribution of a year of education at either level affects both majority and target groups in roughly the same

way. Its dollar value, however, is still somewhat less for minorities and target groups. The fact that the coefficients for postsecondary education for whites, minorities and target groups are roughly equal may be suggestive. If other things were equal, an additional year of postsecondary education might benefit all these groups equally.

Model 2 also allows us to evaluate the mean earnings of all workers, whites, minorities and target groups with 12 and 16 years of educational attainment. The number of weeks worked, the proportion of workers with zero earnings, the proportion of workers with public-sector jobs, their experience, and the hours worked were set at the average for all workers. The standardized earnings in Table 10 show that the disparities between whites and minorities, as well as between whites and target groups, narrow, but do not disappear. It is interesting to note that four years of postsecondary education bring the same average benefits to white and Black males, and that Black and Hispanic females have slightly higher incremental benefits than white females.

The results of standardizing Model 3 in the same way lead to the following conclusions: (1) If other characteristics were equal, Black and Hispanic males would gain roughly $1,500 a year in earnings. Roughly half of this gap would be closed if the educational attainments of these two groups caught up to the average. In the case of women, the results are less straightforward. Black women would gain only $30.

TABLE 10.--Dollar values of standardized earnings, Model 2 at 12 and 16 years of education

	Male					
	All	White	Black	Hispanic	Handi-capped	NELB
12 Yrs.	8,705	7,952	7,109	7,217	7,520	8,508
16 Yrs.	12,369	11,301	10,103	10,256	10,685	12,091
	Female					
12 Yrs.	3,437	3,352	3,689	3,183	2,912	3,556
16 Yrs.	5,162	5,036	5,541	4,780	4,365	5,341

Source: Special tabulations of the SIE.

Black women's coefficients weighted by the characteristics of all workers caused their earnings to decline because a lower proportion of all women are in public employment, and the average number of hours worked during 1975 is lower for the average females compared to Blacks. By contrast, the gain in nine-tenths of a year in education, the difference in attainment between Black and white women workers, would be worth $300 a year to Black females. Hispanic women would gain $483 if all their characteristics were equal to those of the average woman worker. Roughly half of the $483 gain would be caused by higher educational attainment. (2) The earnings gap between white males and others would be narrowed considerably. All groups would deviate much less from the overall mean. Roughly two-thirds of the deficiency in average earnings of Blacks, Hispanics and handicapped males would be wiped out. Among

females, Hispanics would catch up to the average (Table 11).

TABLE 11.--Observed and standardized natural logarithms of mean earnings and dollar values for all, whites, minorities and target groups

Males						
			Natural Logarithms			
Earnings	All	White	Black	Hispanic	Handicapped	NELB
Observed	2.0981	2.1239	1.7741	1.8198	1.8143	2.1042
Standardized	-	2.1177	1.9974	2.0351	2.1158	2.1158
			Dollar Values			
Observed	8,155	8,364	5,895	6,171	6,137	8,201
Standardized	-	8,668	7,370	7,653	7,370	8,296
Females						
			Natural Logarithms			
Observed	1.2883	1.2802	1.3434	1.1464	.9447	1.3217
Standardized	-	1.2815	1.3512	1.2983	1.1765	1.3498
			Dollar Values			
Observed	3,626	3,597	3,832	3,147	2,572	3,750
Standardized	-	3,602	3,862	3,662	3,243	3,857

Source: Special tabulations of the SIE.

These analyses indicate that education could play an important role in equalizing earnings between various groups of the population. One should, of course, take these analyses as indicators, rather than predictors. Forty percent or so of the variation in earnings was not accounted by the regressions, and the influence of the unmeasured factors which account for the rest of the variation may be unequally distributed between

majority and minority workers.

In a famous musical there is a song that asks why women can't be more like men. What would happen if women had the same characteristics as men? According to model 3, their earnings would increase from an average of $3,600 to $5,473. If all women worked as steadily as never-married women, their earnings would go up even further to $6,673. Even this higher earnings estimate brings the earnings of the average female only to the level of male minority or handicapped male workers.

Conclusions

The most novel and, hence, more interesting results of this study are the estimates of the effect of education on income differentials for (1) persons in the labor force full-year, who generally work in full-time jobs, and (2) persons by major occupational group. These two approaches open up new ways of looking at the effect of education.

We hope that these approaches will be followed up by other researchers, because our reliance on a cross-sectional survey, which provides data for one point in time only, prevents one from drawing sweeping conclusions about our findings. The year 1975, for which the data was collected, was a year with above-average unemployment, and since the impact of low levels of economic activity are felt much more keenly by persons with less education, the statistics reported here may provide higher-than-warranted estimates of the effect of additional years of education.

The level of income associated with a given level of education is not immutable either. As the proportion of persons in the labor force with more years of education increases, the gap in earnings between the more and the less educated persons is likely to narrow, unless the supply of jobs which can utilize this education grows as fast or faster as the numbers of persons in the labor force with higher levels of attainment.

Finally, variables in this survey did not include data on motivation, personality attributes, social class, connections or other factors which could affect earnings. It can be argued that persons attained different levels of education because of these unmeasured influences. It is also possible that workers with the same level of education, found in different occupational groups, have followed different career paths because of these attributes or influences.

Despite these cautions, two features of the models presented above may be relevant to persons who are concerned about the role of education in equalizing economic opportunity. Among younger workers, the contribution to earnings of an additional year of education does not differ as radically between whites and minorities as it does for other workers. This narrowing of the gap has been ascribed to the increased educational opportunities for minorities in recent years;[7] other analyses cite the reduction in discrimination.

Without taking sides in this controversy, we shall merely note that if the average minority worker had the same

number of years of educational attainment and worked as many weeks and hours as the majority, more than two-thirds of the gap might be closed.

The differential benefits of additional years of schooling by occupational group can give a clue to the effects of structural shifts in employment upon the earnings of persons with different levels of education. We previously estimated[8] that the proportion of college graduates in professional and managerial jobs was likely to decline from the 76.2 percent observed in 1975 to 62.6 percent in 1985. By shifting 13.6 percent of males from group 1 to group 2, we can project that males with 19 years of experience and 16 years of education would lose $312, or 2.5 percent of their mean earnings. Among women, the lower proportion of females in teaching jobs, which are in the public sector, would also act as a depressant on their wages. If the proportion of women employed in the public service declined by a third from the 1975 level, for instance, we could expect their wages to be depressed by 1-2/3 percent.

Models are not precise representations of reality. This is the reason for choosing more than one model to illustrate the effects of education on earnings.

We are satisfied that (1) education does play an important part in the determination of earnings, (2) the various models produced fairly consistent coefficients for a year of education, hence the estimates cited above are not due merely to the way the models were specified, and (3) opportunities

for employment and subsequent promotions are practically as important as differences in educational attainment in causing differences in mean earnings between whites, minorities and target groups.

FOOTNOTES

[1]Black: Race of the respondent was determined by observation. Persons were coded as White, Black and Other. Persons of Latin-American descent were coded as White, unless the interviewer decided that they were definitely of Black or other nonwhite race. In the case of persons unrelated to the household head, an inquiry was made of the respondents to the questionnaire.

Hispanic: Persons who reported themselves as being Mexican, Puerto Rican, Cuban, Central or South American or some other Hispanic origin.

Handicapped: Persons who reported themselves as having a condition--physical, emotional, or mental--which limits or interferes with their ability to do regular school work, to take part in sports, games, or other such activities, or limits the kind or amount of work they can do either in a job or around the house.

Non-English Language Background: An individual is to be classified as having a non-English-language background if:
1. Age greater than 15 (SIE Item 20) and
2. At least one of the following criteria is met:
   A. NE Usual Individual language (SIE Item 51)
   B. NE Second Individual language (SIE Item 51B)
   C. NE Usual Household language (SIE Item CC24a)
   D. NE Second Household language (SIE Item CC24c)
   E. NE Mother Tongue (SIE Item 49).

[2]These figures are reported by the U.S. Bureau of the Census, Current Population Reports, Series P-60.

[3]For a recent review, see Blaug, Mark "Human Capital Theory: A Slightly Jaundiced Survey," Journal of Economic Literature, Vol. XIV, No. 3, September 1976, pp. 827-55.

[4]The total number of unweighted observations of persons who could have presumed to have work experience was 170,775. Of these, 152,790 observations were used.

[5]Welch, Finis "Black-White Differences in Returns to Schooling," American Economic Review, Vol. LXIII, No. 5 (December 1973) p. 893 ff.

[6]Smith, James P. and Welch, Finis, Race Differences in Earnings: A Survey and New Evidence, R-2295-NSF, RAND, Santa Monica, March 1978.

[7]See Welch (Footnote 6), loc.cit. For a discussion of Black-White earnings differences, see "The Quality of Education and Cohort Variation in Black-White Earning Differentials: Comment," by John S. Akin and Irv Garfinkel, "Reply" by F. Welch and "Reply" by Charles Link, Edward Ratledge and Kenneth Lewis in American Economic Review, Vol 70, No. 1, March 1980, pp. 186-203.

[8]Froomkin, Joseph What Jobs Will Be Available for Persons with a Postsecondary Education in 1985?, 300-76-0026, EPRC for Higher Education and Society, Washington, D.C., March 1979.

TECHNICAL NOTE

ECONOMIC BENEFITS OF EDUCATION

National estimates of earnings of differentials between persons with different levels of education are based either on decennial census data or the annual compilation of the Current Population Survey. In the past year, an additional data source has been added, the Survey of Income and Education (SIE) conducted during the spring and summer of 1976. This survey's sample size was 2.8 times the size of the monthly CPS sample, with answers elicited from 150 thousand households. Furthermore, the SIE questionnaire was administered in person, a procedure believed to elicit more accurate responses about the level and sources of incomes than the responses obtained by mail or telephone, used respectively by the decennial census and the CPS.

LABOR FORCE PARTICIPATION AND INCOMES

Labor force participation rates and mean earnings by age. While there is a general consensus that income information obtained by the SIE is probably more accurate than the one collected in the decennial census or the annual CPS surveys, it is not at all certain that labor force participation data was elicited as rigorously by SIE interviewers compared to interviewers in the CPS.

As best as we were able to elicit, some 1.5 percent fewer males age 25-44 reported participation in the labor force in the SIE when compared to the participation rates of the CPS.

Overall, the labor participation rate of males during 1975 was 3.8 percent higher in the SIE as compared to the CPS.

Some 24 percent more women interviewed by the SIE reported some labor force participation, as compared to CPS respondents. In every age group, the labor force participation rates of women calculated from the SIE exceeded that of the CPS by between four and seven percent. The only exceptions were women over 65.

TABLE 1.--Labor force participation rates in 1975, by age group and sex, SIE and CPS (1976)
(percent)

	Male		Female	
	SIE	CPS	SIE	CPS
Total	83.1	79.3	56.7	49.6
18-24	88.4	88.7	80.0	72.1
25-34	93.8	97.0	67.5	62.5
35-44	94.8	98.0	64.5	60.9
45-54	92.5	92.2	61.9	57.8
55-64	82.3	80.1	48.9	41.8
65 and older	30.5	29.3	12.6	12.3
Number in Labor Force (thousands)	56,380	53,736	43,691	35,436

Source: Special tabulations of the SIE.
U.S. Bureau of the Census, "Population Profile of the United States: 1975," Current Population Reports, Series P-20, No. 292, March 1976, Table 18, p. 30.
U.S. Bureau of the Census, "Population Profile of the United States: 1976," Current Population Reports, Series P-20, No. 307, April 1977, Table 22, p. 30.

Note: To conform to SIE participation rates, numbers of participants in 1975 were divided by numbers in age group in 1976.

Since marginal labor force participants are more likely to be missed by interviewers, one would expect that reported mean earning rates in the SIE would be lower for those groups where reported labor force participation is higher than the one in the CPS. This expectation is not borne out. Only in the case of younger men, 25-29, are SIE participation rates five percent lower than those of the CPS, and SIE reported mean earnings are $111 lower. In other age groups, where male labor participation rates do not differ significantly, reported mean earnings in the SIE are sometimes higher and sometimes lower than those in the CPS. For women, contrary to expectations, reported earnings are higher at all age groups, except for women over age 65. (See Table 2.)

TABLE 2.--Mean earnings by age group 1975, comparison of SIE and CPS

(dollars)

	Total		Full-Time, Full-Year	
Total	SIE	CPS	SIE	CPS
18-24	4,118	4,161	7,425	7,491
25-29	8,199	8,202	10,618	10,647
30-34	10,059	9,870	12,678	12,853
35-44	11,027	10,861	13,803	13,835
45-54	11,186	11,091	13,509	13,591
55-64	10,101	9,766	12,467	12,337
65+	5,750	4,904	11,003	9,952
Number (thousands)	96,932	97,880	65,146	54,447

TABLE 2.(Cont'd)--Mean earnings by age group 1975, comparison of SIE and CPS

(dollars)

	Total		Full-Time, Full-Year	
Male	SIE	CPS	SIE	CPS
18-24	4,817	4,890	8,235	8,360
25-29	9,953	10,064	11,840	11,909
30-34	12,976	12,698	14,221	14,310
35-44	14,688	14,468	15,983	16,030
45-54	14,578	14,544	15,809	15,919
55-64	12,829	12,425	14,540	14,405
65+	7,168	6,141	12,675	11,286
Number (thousands)	55,598	57,297	44,143	37,027
Female				
18-24	3,357	3,322	6,368	6,345
25-29	5,876	5,628	8,304	8,266
30-34	5,675	5,444	8,505	8,773
35-44	5,717	5,492	8,342	8,320
45-54	6,263	5,960	8,371	8,358
55-64	5,906	5,642	7,914	7,916
65+	3,365	2,835	6,909	6,309
Number (thousands)	40,973	40,054	21,003	17,420

Source: Special tabulations of the SIE.
U.S. Bureau of the Census, "Money Income in 1975 of Families and Persons in the United States," Current Population Reports, Series P-60, No. 105, June 1977.

No judgement on the validity of the SIE income figures is possible. In the case of women, one certainly gains the impression that they were collected with more zeal than those reported by the CPS. It should be merely noted that they are different.

Education and labor force participation and incomes. A comparison of numbers of persons with earnings by level of education shows even higher disparities between the SIE and the

CPS. Some of these disparities could be expected. The SIE reported the educational attainment of persons for April-July 1976 and earnings for calendar 1975. The CPS reports educational attainment as of March 1976 and incomes for the previous year.

One would thus expect that the number of persons who completed high school or achieved a given level of postsecondary education would be higher in the SIE. This is not necessarily the case at all levels of education. SIE reports fewer males gainfully employed at all education levels beyond high school graduation. By contrast, the number of women at all levels, except high school graduate, is higher in the SIE than in the CPS.

TABLE 3.--Number of persons with earnings 18 years or older from CPS and SIE by level of education, sex, and work experience

	Persons With Earnings			
	Total		Full-Time, Full-Year Workers	
	CPS	SIE	CPS	SIE
Total	97,880	96,932	54,627	56,636
High School Graduates	39,827	37,139	22,525	22,749
C1-C3	16,917	18,528	8,901	10,088
C4	9,765	9,451	6,554	6,033
C5	6,457	7,181	4,654	4,783
Male	57,297	55,598	37,207	38,476
High School Graduates	21,347	19,566	14,138	14,137
C1-C3	9,851	10,396	6,078	6,672
C4	5,960	5,652	4,648	4,393
C5	4,526	4,934	3,519	3,776
Female	40,584	40,973	17,420	18,159
High School Graduates	18,480	17,573	8,387	8,612
C1-C3	7,066	8,132	2,823	3,417
C4	3,804	3,799	1,907	1,640
C5	1,931	2,247	1,135	1,017

TABLE 3.(Cont'd)--Number of persons with earnings 18 years or older from CPS and SIE by level of education, sex, and work experience

Source: Special tabulations of the SIE.
U.S. Bureau of the Census, "Money Income in 1975 of Families and Persons in the United State," Current Population Reports, Series P-60, No. 105, June 1977.

In the case of full year full-time workers, the reported number is higher in the SIE for both males and females among those with fewer than four years of college education, and lower for those with four or more years of college.

Applying the logic described above, one would expect SIE to report lower earnings for college graduates and persons with college degrees, and higher earnings for all others. This is only partially true. (See Table 4.)

TABLE 4.--Mean earnings by education level (dollars)

	Total			Full-Time, Full-Year		
	CPS	SIE	SIE-CPS	CPS	SIE	SIE-CPS
Total	8,552	8,679	127	12,099	12,052	-47
H4	7,843	8,049	206	10,795	10,785	-10
C1-C3	8,388	8,217	-171	12,618	12,298	-320
C4	12,331	12,068	-263	15,799	15,152	-647
C5+	16,725	15,872	-853	19,741	19,648	-93
Male	11,091	11,247	156	14,047	14,000	-47
H4	10,475	10,804	329	12,818	12,836	18
C1-C3	10,805	10,652	-153	14,528	14,290	-238
C4	15,758	15,509	-249	18,192	18,168	-24
C5+	19,672	18,494	-1,178	21,977	21,349	-628
Female	4,968	5,171	203	7,940	7,924	-16
H4	4,802	4,982	180	7,384	7,417	33
C1-C3	5,019	5,104	85	8,506	8,409	-97
C4	6,963	6,949	-14	9,946	10,103	157
C5+	9,818	10,114	296	12,808	13,346	538

TABLE 4.(Cont'd)--Mean earnings by education level (dollars)

Source: See Table 3.

Note: For numbers, see Table 3.

The standard erors of the CPS are reported. Hence, we can compare the differences in the reported incomes as a ratio to standard errors of the CPS. In seven cases out of ten, the differences of reported earnings by sex exceed one standard error, hence the income information from the SIE can be presumed to be significantly different from the one collected by the CPS.

MEASURES OF ECONOMIC BENEFITS OF EDUCATION

Economists usually compute the economic benefits of education by comparing income differentials between groups of persons with different levels of education, generally persons who usually work full-time the year-round. In those cases when either part-year workers or part-time workers are taken into consideration in calculating economic benefits, an hourly earnings rate is estimated, and it is assumed that workers who do not choose to work the full year (especially women) are equally productive in non-remunerated sectors.

Full-year in the labor force concept. The use of remunerations for full-year full-time workers takes into consideration the prevailing wage for workers with a given level of education. The mean or median wage is representative of the average productivity of workers who spend their entire year in the labor force working full-time.

While this measure is probably superior to the average earnings of all workers, since it takes into account the intensity of involvement in the labor force, we believe that it has gained currency for lack of anything better being available. The format of the questionnaire used in the SIE makes it possible to propose a superior concept, which takes into account the time spent in involuntary unemployment. As the incidence of involuntary unemployment decreases as educational attainment increases, some measure which takes this into consideration is probably superior to the present concept.

Hence, we propose to introduce a new measure of economic benefits of education, the difference in earnings between persons with different levels of education who worked or looked for full-time work for the whole year. We called this category of workers as full-time/full-year workers in the labor force (ILF). Thus we can highlight the benefits of higher educational attainment from increased employability, as well as increased productivity (or desirability to employers).

The full-year in the labor force levels of earnings are shown in Table 4.

The differences between the full-time earnings of persons with college education using this concept appears in Table 5.

TABLE 5.--Mean incremental incomes of persons with postsecondary education compared to high school graduates, 1975

	Total		Full-Time/ Full-Year		Full-Time Workers	Full-Year in Labor Force
	CPS	SIE	CPS	SIE	SIE	SIE
Total						
C1-C3	545	168	1,823	1,513	709	1,549
C4	4,488	4,019	5,004	4,367	4,482	5,254
C5+	8,882	7,823	8,946	8,863	8,213	9,095
Male						
C1-C3	330	-152	1,710	1,454	482	1,508
C4	5,283	4,705	5,374	5,332	4,985	5,573
C5+	9,197	7,690	9,159	8,513	8,190	8,913
Female						
C1-C3	217	122	1,122	992	524	1,067
C4	2,161	1,967	2,562	2,686	2,464	2,763
C5+	5,016	5,132	5,424	5,929	5,687	6,122

Source: See Table 3.

SIZE OF SAMPLE AND REPRESENTATION OF TARGET GROUPS

The much larger size of the SIE sample, 155 thousand households, as contrasted to 56 thousand households interviewed by CPS, provided some hope that additional statistical detail could be presented about income by age of members of minority groups with different levels of postsecondary education. Table 5 shows the estimated numbers of persons by age group for the two large minority groups and for handicapped persons. As soon as one disaggregates by educational attainment level, and examines the number of persons in the labor force, or in the labor force full-time (without cutting it any finer, say, in the labor force full-time/full-year), one is soon convinced

that the number of persons in the sample makes it impossible to report reliable statistics for older members of these groups with some college education. In the case of persons with four years of college, it appears possible to present some data for younger blacks, but not for the other groups. We currently believe that a population estimate of at least 20 thousand, representing roughly 25 interviewers, is needed before meaningfull medians can be presented. To present means, we would be happier with some 40 thousand in the appropriate cell, representing 50 cases. The CPS does not show any means for groups where the total population is less than 75 thousand. We believe that we are extremely brave in setting our cut-off points at these levels.

TABLE 6.--Blacks, Hispanics and handicapped workers by age, class of worker, and selected educational attainment

(thousands)

MALES

	Blacks				Hispanics				Handicapped			
	Total	Full-Time	Part-Time	ILF/ Full-Time Full-Year	Total	Full-Time	Part-Time	ILF/ Full-Time Full-Year	Total	Full-Time	Part-Time	ILF/ Full-Time Full-Year
H4 Total	1,637	1,404	233	1,242	649	602	46	544	1,777	1,494	283	1,193
18-24	497	371	126	285	183	154	28	125	293	214	79	144
25-29	327	291	36	265	107	99	8	95	177	153	24	129
30-34	219	209	10	198	82	80	3	76	144	132	13	107
35-44	296	271	25	254	146	142	4	128	277	239	38	196
45-54	186	162	23	151	92	90	2	84	376	337	39	292
55-64	93	84	9	76	34	33	1	30	411	370	40	294
65+	20	17	3	14	5	5	-	5	100	50	50	31
C1-C3 Total	768	632	137	517	377	324	54	278	798	653	145	506
18-24	267	178	89	104	117	86	31	54	133	82	50	45
25-29	163	140	22	130	85	76	8	69	118	104	14	79
30-34	95	89	6	80	64	59	5	57	75	68	7	62
35-44	122	112	10	101	54	51	3	51	123	110	13	86
45-54	77	73	4	66	45	42	3	40	158	146	12	123
55-64	37	35	2	32	8	8	-	7	139	115	24	91
65+	8	5	3	3	5	2	4	1	54	28	26	20

TABLE 6.(Cont'd)--Blacks, Hispanics and handicapped workers by age, class of worker, and selected educational attainment

(thousands)

	MALES											
	Blacks				Hispanics				Handicapped			
	Total	Full-Time	Part-Time	ILF/ Full-Time Full-Year	Total	Full-Time	Part-Time	ILF/ Full-Time Full-Year	Total	Full-Time	Part-Time	ILF/ Full-Time Full-Year
C4 Total	211	184	27	159	100	88	12	78	327	285	41	240
18-24	41	29	11	20	13	8	5	7	26	21	5	15
25-29	63	53	10	49	32	28	4	22	52	48	4	41
30-34	34	30	4	28	21	19	2	17	38	32	6	27
35-44	34	32	1	29	15	13	1	13	46	45	1	42
45-54	25	25	-	23	18	18	-	18	77	68	9	60
55-64	10	10	-	6	0	0	-	0	61	54	7	42
65+	5	5	-	5	2	2	-	2	27	18	9	14
C5 Total	158	139	19	116	99	96	2	89	243	188	55	148
18-24	10	5	5	2	2	2	-	1	8	5	3	4
25-29	30	24	5	20	17	15	2	10	28	23	5	17
30-34	22	20	1	20	12	11	0	11	29	28	1	24
35-44	44	43	2	35	36	36	0	34	32	26	7	21
45-54	31	30	2	26	19	19	-	19	47	41	7	34
55-64	14	13	1	10	14	14	-	14	59	50	9	40
65+	6	4	3	4					39	16	23	8

TABLE 6.(Cont'd)--Blacks, Hispanics and handicapped workers by age, class of worker, and selected educational attainment

(thousands)

	FEMALES											
	Blacks				Hispanics				Handicapped			
	Total	Full-Time	Part-Time	ILF/ Full-Time Full-Year	Total	Full-Time	Part-Time	ILF/ Full-Time Full-Year	Total	Full-Time	Part-Time	ILF/ Full-Time Full-Year
H4 Total	1,943	1,422	522	1,123	634	472	163	337	1,393	804	589	534
18-24	599	374	226	244	220	157	62	97	218	125	93	74
25-29	369	298	72	233	127	94	34	67	136	90	46	58
30-34	288	221	68	191	90	67	23	52	123	73	50	39
35-44	371	297	74	261	119	94	25	72	257	155	102	109
45-54	212	163	49	137	62	45	17	38	326	190	136	140
55-64	84	62	22	53	16	14	2	10	259	146	113	102
65+	19	8	11	5	1	1	0	0	73	24	48	11
C1-C3 Total	792	544	248	421	250	166	84	123	516	315	201	192
18-24	293	159	134	95	105	58	47	30	120	70	51	33
25-29	169	138	30	109	48	33	14	31	59	39	20	24
30-34	91	69	22	57	27	23	3	20	51	32	19	14
35-44	118	89	29	81	46	34	13	30	79	53	27	36
45-54	74	56	18	53	20	14	6	11	85	51	35	35
55-64	39	28	10	25	5	4	0	3	90	56	33	41
65+	8	3	5	1	1	-	1	-	30	15	16	9
C4 Total	259	214	45	143	60	48	12	33	148	92	56	55
18-24	54	38	16	23	15	9	6	4	30	20	11	12
25-29	72	63	9	45	18	17	1	12	24	18	7	10
30-34	36	29	6	19	6	4	1	4	12	7	5	4
35-44	49	43	6	30	8	4	4	3	26	17	10	11
45-54	31	28	3	18	12	12	-	8	20	15	4	9
55-64	13	11	2	6	3	2	0	2	20	12	8	7
65+	4	2	2	1					16	4	12	2

TABLE 6.(Cont'd)--Blacks, Hispanics and handicapped workers by age, class of worker, and selected educational attainment

(thousands)

	FEMALES											
	Blacks				Hispanics				Handicapped			
	Total	Full-Time	Part-Time	ILF/ Full-Time Full-Year	Total	Full-Time	Part-Time	ILF/ Full-Time Full-Year	Total	Full-Time	Part-Time	ILF/ Full-Time Full-Year
C5 Total	169	131	37	78	39	32	8	21	99	71	28	30
18-24	14	9	6	3	3	2	1	-	2	2	-	1
25-29	34	24	10	15	8	6	2	3	19	14	5	4
30-34	26	19	7	13	1	1	0	1	9	7	2	5
35-44	41	33	8	21	9	8	1	6	21	16	5	8
45-54	28	24	3	13	16	12	4	10	18	12	6	5
55-64	25	22	3	12	1	1	-	1	24	19	5	7
65+	1	0	0	0	1	1	-	-	7	2	6	1

- Data not available.

Source: Special tabulations of the SIE.

APPENDIX

List of Selected Regressions

1. Model 1, Regression of 1975 earnings of full-year full-time workers, dollars + natural logarithms.

2. Model 2, Regressions of 1975 earnings of all, white, minority + target group workers, dollars + natural logarithms.

3. Model 3, Regression of 1975 earnings of all, white, minority + target group workers, dollars + natural logarithms.

3a. Model 3, full-year/full-time workers, and Model 3 with zero income variable.

3b. Model 3, Regression of 1975 earnings, dollars + natural logarithms of all workers by experience group, with and without the experience variable.

4. Model 4, Regressions of 1975 earnings with separate schooling and experience coefficients by occupation groups for all, white, minority + target groups.

Glossary of Abbreviations in Tables

Sch = Number of years of school completed

TG6 = Handicapped (Dummy)

TG7 = Non-English speaking minority (Dummy)

Black D = Black (Dummy)

Hisp D = Hispanic (Dummy)

South D = Southern region residence (Dummy)

AnnHours = Annual hours (usual hours worked x weeks worked)

Logworkwks = Natural log of weeks worked

Pubcow = Public sector worker (Dummy)

ZY = Zero income (Dummy)

Exp = Experience in years

Exp^2 = Experience squared

Expgp1 - age - (schooling + 6) = negative or zero
Expgp2 - age - (schooling + 6) = 1-5
Expgp3 - age - (schooling + 6) = 6-10
Expgp4 - age - (schooling + 6) = 11-15
Expgp5 - age - (schooling + 6) = 16-20
Expgp6 - age - (schooling + 6) = 20+

Sch1 = Grade 1-12

Sch2 = Grade 12+

E1 = Experience in years of women never married with no children

ESQ1 = Above term squared

E2 = Experience of women never married with own children present

ESQ2 = Above term squared.

E3 = Experience of women ever married no own children present

ESQ3 = Above term squared

E4 = Experience of women ever married, own children present

ESQ4 = Above term squared

Model 4

R = Schooling

Q = Experience

Subscrits to above

1. Professionals, technical + allied workers, and managers
2. Clerical + sales workers
3. Craftsmen, operatives and laborers (non-farm)
4. Service workers
5. Farmers + farm laborers

Sex 1 = Male

Sex 2 = Female

1. Model 1

ODEL: MODEL01		SSE	2302083	F RATIO	2513.74
		DFE	60770	PROB>F	0.0001
EP VAR: EARNINGS		MSE	37.881899	R-SQUARE	0.2713

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-10.383259	0.224073	-46.3387	0.0001	
SCH	1	0.995871	0.00953655	104.4268	0.0001	
TG6	1	-0.275707	0.084266	-3.2719	0.0011	
TG7	1	-1.763103	0.094620	-18.6336	0.0001	
BLACKD	1	-1.553700	0.110032	-14.1204	0.0001	
EXP	1	0.582340	0.007151699	81.4269	0.0001	
XPSQ	1	-0.00910801	0.0001509021	-60.3571	0.0001	
HISPD	1	-0.559656	0.156760	-3.5702	0.0004	
OUTHD	1	-0.308638	0.063103	-4.8910	0.0001	
NNHOURS	1	0.002320999	0.0000779695	29.7680	0.0001	

MODEL: MODEL01		SSE	20986.79	F RATIO	1642.74
		DFE	60770	PROB>F	0.0001
EP VAR: LOGEARN		MSE	0.345348	R-SQUARE	0.1957

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	0.907343	0.021395	42.4100	0.0001	
CH	1	0.073057	0.00091055	80.2334	0.0001	
G6	1	-0.022913	0.008045718	-2.8479	0.0044	
G7	1	-0.173991	0.009034275	-19.2590	0.0001	
LACKD	1	-0.136187	0.010506	-12.9629	0.0001	
EXP	1	0.050899	0.0006828443	74.5392	0.0001	
EXPSQ	1	-0.000845222	.00001440813	-58.6629	0.0001	
HISPD	1	-0.057488	0.014967	-3.8409	0.0001	
SOUTHD	1	-0.046062	0.006025108	-7.6451	0.0001	
NNHOURS	1	.00005765782	.00000744453	7.7450	0.0001	

MODEL: MODEL01 — SSE 364528.2 — F RATIO 905.11
DEP VAR: EARNINGS — DFE 31041 — PROB>F 0.0001
MSE 11.743441 — R-SQUARE 0.2079

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-5.813341	0.226314	-25.6871	0.0001	
SCH	1	0.699375	0.008779667	79.6585	0.0001	
TG6	1	0.307899	0.066976	4.5972	0.0001	
TG7	1	-0.741362	0.086255	-8.5950	0.0001	
BLACKD	1	0.586883	0.069761	8.4127	0.0001	
EXP	1	0.151889	0.005342682	28.4293	0.0001	
EXPSQ	1	-0.00230679	0.0001181575	-19.5230	0.0001	
HISPD	1	-0.209313	0.125595	-1.6666	0.0956	
SOUTHD	1	-0.193422	0.047468	-4.0747	0.0001	
ANNHOURS	1	0.001514801	.00009449239	16.0309	0.0001	

MODEL: MODEL01 — SSE 9607.966 — F RATIO 499.66
DEP VAR: LOGEARN — DFE 31041 — PROB>F 0.0001
MSE 0.309525 — R-SQUARE 0.1265

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	0.669110	0.036742	18.2111	0.0001	
SCH	1	0.085482	0.001425372	59.9716	0.0001	
TG6	1	0.034013	0.010873	3.1281	0.0018	
TG7	1	-0.153398	0.014003	-10.9543	0.0001	
BLACKD	1	0.082502	0.011326	7.2845	0.0001	
EXP	1	0.018186	0.0008673802	20.9661	0.0001	
EXPSQ	1	-0.000297849	.00001918277	-15.5269	0.0001	
HISPD	1	-0.017963	0.020390	-0.8810	0.3783	
SOUTHD	1	-0.030731	0.007706461	-3.9877	0.0001	
ANNHOURS	1	-3.81647E-07	.00001534077	-0.0249	0.9802	

2. Model 2

MODEL: MODEL01 SSE 2789239 F RATIO 8696.44
DFE 85698 PROB>F 0.0001
DEP VAR: EARNINGS MSE 32.547307 R-SQUARE 0.4481

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-11.986741	0.260185	-46.0701	0.0001	
SCH1	1	0.568464	0.012450	45.6594	0.0001	
SCH2	1	1.155162	0.011349	101.7855	0.0001	
LOGWKWRK	1	1.154477	0.077692	14.8596	0.0001	
ZY	1	-3.770736	0.402683	-9.3640	0.0001	
PUBCOW	1	-0.660512	0.052599	-12.5576	0.0001	
EXP	1	0.518755	0.005277055	98.3040	0.0001	
EXPSQ	1	-0.00844823	0.0001143124	-73.9047	0.0001	
ANNHOURS	1	0.003274005	.00005025019	65.1541	0.0001	

MODEL: MODEL01 SSE 36831.76 F RATIO 14207.45
DFE 85698 PROB>F 0.0001
DEP VAR: LOGEARN MSE 0.429786 R-SQUARE 0.5701

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.625062	0.029899	-87.7989	0.0001	
SCH1	1	0.067296	0.001430674	47.0377	0.0001	
SCH2	1	0.087844	0.001304143	67.3578	0.0001	
LOGWKWRK	1	0.653557	0.008927851	73.2043	0.0001	
ZY	1	-1.168420	0.046273	-25.2503	0.0001	
PUBCOW	1	-0.000324311	0.006044269	-0.0537	0.9572	
EXP	1	0.064382	0.0006064011	106.1707	0.0001	
EXPSQ	1	-0.00107365	.00001313596	-81.7335	0.0001	
ANNHOURS	1	0.0004157746	.00000577439	72.0032	0.0001	

MODEL: MODEL01 SSE 518547.5 F RATIO 10171.30
DEP VAR: EARNINGS DFE 66668 PROB>F 0.0001
MSE 7.778057 R-SQUARE 0.5497

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-3.935797	0.127741	-30.8107	0.0001	
SCH1	1	0.203471	0.007981946	25.4914	0.0001	
SCH2	1	0.676559	0.007083852	95.5072	0.0001	
LOGWKWRK	1	-0.00381217	0.033584	-0.1135	0.9096	
ZY	1	-4.787104	0.082404	-58.0930	0.0001	
PUBCOW	1	0.936802	0.027572	33.9765	0.0001	
EXP	1	0.108226	0.002752406	39.3206	0.0001	
EXPSQ	1	-0.00181707	.00006296347	-28.8591	0.0001	
ANNHOURS	1	0.003461907	.00002453991	141.0725	0.0001	

MODEL: MODEL01 SSE 25186.03 F RATIO 14274.25
DEP VAR: LOGEARN DFE 66668 PROB>F 0.0001
MSE 0.377783 R-SQUARE 0.6314

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.083568	0.028152	-74.0102	0.0001	
SCH1	1	0.052857	0.001759115	30.0473	0.0001	
SCH2	1	0.101722	0.001561187	65.1568	0.0001	
OGWKWRK	1	0.336489	0.007401424	45.4628	0.0001	
ZY	1	-1.238318	0.018161	-68.1863	0.0001	
PUBCOW	1	0.169197	0.006076517	27.8444	0.0001	
EXP	1	0.024197	0.0006065939	39.8891	0.0001	
EXPSQ	1	-0.000425668	.00001387632	-30.6759	0.0001	
ANNHOURS	1	0.0008189009	.00000540827	151.4163	0.0001	

MODEL: MODEL01 SSE 2612243 F RATIO 7860.96
DFE 78114 PROB>F 0.0001
DEP VAR: EARNINGS MSE 33.441415 R-SQUARE 0.4460

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-12.584923	0.284555	-44.2267	0.0001	
SCH1	1	0.564104	0.013876	40.6534	0.0001	
SCH2	1	1.159125	0.011946	97.0341	0.0001	
LOGWKWRK	1	1.372045	0.083633	16.4056	0.0001	
ZY	1	-3.708454	0.419919	-8.8314	0.0001	
PUBCOW	1	-0.798483	0.057036	-13.9997	0.0001	
EXP	1	0.545825	0.005652869	96.5572	0.0001	
EXPSQ	1	-0.00901001	0.0001228973	-73.3134	0.0001	
ANNHOURS	1	0.003139196	.00005292667	59.3122	0.0001	

MODEL: MODEL01 SSE 32829.44 F RATIO 13024.18
DFE 78114 PROB>F 0.0001
DEP VAR: LOGEARN MSE 0.420276 R-SQUARE 0.5715

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.627484	0.031900	-82.3662	0.0001	
SCH1	1	0.067865	0.001555561	43.6275	0.0001	
SCH2	1	0.086865	0.001339155	64.8658	0.0001	
LOGWKWRK	1	0.656261	0.009375623	69.9966	0.0001	
ZY	1	-1.166808	0.047075	-24.7861	0.0001	
PUBCOW	1	-0.00309082	0.006393998	-0.4834	0.6288	
EXP	1	0.066756	0.0006337148	105.3406	0.0001	
EXPSQ	1	-0.00112596	0.0000137774	-81.7250	0.0001	
ANNHOURS	1	0.0004052305	.00000593334	68.2971	0.0001	

MODEL: MODEL01 SSE 455364.1 F RATIO 9027.74
DEP VAR: EARNINGS DFE 59172 PROB>F 0.0001
MSE 7.695600 R-SQUARE 0.5497

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-3.965099	0.138125	-28.7066	0.0001	
SCH1	1	0.202807	0.008875935	22.8491	0.0001	
SCH2	1	0.663409	0.007456054	88.9758	0.0001	
LOGWKWRK	1	0.015089	0.035349	0.4269	0.6695	
ZY	1	-4.802212	0.083144	-57.7578	0.0001	
PUBCOW	1	0.863401	0.029801	28.9724	0.0001	
EXP	1	0.106447	0.002909889	36.5809	0.0001	
EXPSQ	1	-0.00176598	.00006686901	-26.4095	0.0001	
ANNHOURS	1	0.003447022	.00002561663	134.5619	0.0001	

MODEL: MODEL01 SSE 22247.87 F RATIO 12718.52
DEP VAR: LOGEARN DFE 59172 PROB>F 0.0001
MSE 0.375986 R-SQUARE 0.6323

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.092938	0.030531	-68.5519	0.0001	
SCH1	1	0.053425	0.001961909	27.2311	0.0001	
SCH2	1	0.100612	0.001648063	61.0484	0.0001	
LOGWKWRK	1	0.335935	0.007813459	42.9944	0.0001	
ZY	1	-1.241693	0.018378	-67.5646	0.0001	
PUBCOW	1	0.164932	0.006587072	25.0388	0.0001	
EXP	1	0.023991	0.0006431929	37.3006	0.0001	
EXPSQ	1	-0.000415264	.00001478052	-28.0953	0.0001	
ANNHOURS	1	0.0008196814	.00000566222	144.7632	0.0001	

MODEL: MODEL01 SSE 93197.67 F RATIO 600.54
DEP VAR: EARNINGS DFE 5422 PROB>F 0.0001
MSE 17.188800 R-SQUARE 0.4698

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-6.600791	0.638975	-10.3303	0.0001	
SCH1	1	0.418350	0.028702	14.5758	0.0001	
SCH2	1	1.038225	0.044196	23.4916	0.0001	
LOGWKWRK	1	0.143361	0.218005	0.6576	0.5108	
ZY	1	-5.435173	1.697723	-3.2014	0.0014	
PUBCOW	1	0.655485	0.133859	4.8968	0.0001	
EXP	1	0.264698	0.014366	18.4251	0.0001	
EXPSQ	1	-0.00390427	0.0002965604	-13.1652	0.0001	
ANNHOURS	1	0.003654362	0.0001678431	21.7725	0.0001	

MODEL: MODEL01 SSE 2410.771 F RATIO 947.93
DEP VAR: LOGEARN DFE 5422 PROB>F 0.0001
MSE 0.444628 R-SQUARE 0.5831

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.579858	0.102768	-25.1036	0.0001	
SCH1	1	0.056666	0.004616162	12.2756	0.0001	
SCH2	1	0.102722	0.007108125	14.4514	0.0001	
LOGWKWRK	1	0.642438	0.035062	18.3227	0.0001	
ZY	1	-1.261697	0.273050	-4.6208	0.0001	
PUBCOW	1	0.037998	0.021529	1.7650	0.0776	
EXP	1	0.044661	0.002310547	19.3290	0.0001	
EXPSQ	1	-0.000689564	.00004769673	-14.4573	0.0001	
ANNHOURS	1	0.0004936161	.00002699473	18.2856	0.0001	

MODEL: MODEL01 SSE 42342.04 F RATIO 939.11
DFE 5600 PROB>F 0.0001
DEP VAR: EARNINGS MSE 7.561079 R-SQUARE 0.5729

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-4.180046	0.420350	-9.9442	0.0001	
SCH1	1	0.218268	0.023872	9.1433	0.0001	
SCH2	1	0.921177	0.027332	33.7035	0.0001	
LOGWKWRK	1	0.066301	0.122739	0.5402	0.5891	
ZY	1	-3.477310	0.712254	-4.8821	0.0001	
PUBCOW	1	1.249110	0.083698	14.9240	0.0001	
EXP	1	0.110304	0.009514079	11.5938	0.0001	
EXPSQ	1	-0.00202358	0.0002075635	-9.7492	0.0001	
ANNHOURS	1	0.003339471	.00009519591	35.0800	0.0001	

MODEL: MODEL01 SSE 1896.058 F RATIO 1365.13
DFE 5600 PROB>F 0.0001
DEP VAR: LOGEARN MSE 0.338582 R-SQUARE 0.6610

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.176128	0.088951	-24.4643	0.0001	
SCH1	1	0.055579	0.005151554	11.0024	0.0001	
SCH2	1	0.128136	0.00578373	22.1546	0.0001	
LOGWKWRK	1	0.378352	0.025973	14.5671	0.0001	
ZY	1	-0.817537	0.150721	-5.4242	0.0001	
PUBCOW	1	0.181167	0.017711	10.2288	0.0001	
EXP	1	0.022985	0.002013291	11.4164	0.0001	
EXPSQ	1	-0.000467646	.00004392288	-10.6470	0.0001	
ANNHOURS	1	0.0007954528	.00002014458	39.4872	0.0001	

MODEL: MODEL01 SSE 57730.69 F RATIO 299.04
DEP VAR: EARNINGS DFE 2926 PROB>F 0.0001
MSE 19.730242 R-SQUARE 0.4498

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-6.790395	0.977219	-6.9487	0.0001	
SCH1	1	0.439638	0.034492	12.7459	0.0001	
SCH2	1	0.967026	0.065586	14.7443	0.0001	
LOGWKWRK	1	0.014571	0.343631	0.0424	0.9662	
ZY	1	-2.706065	3.146487	-0.8600	0.3898	
PUBCOW	1	-0.133741	0.218101	-0.6132	0.5398	
EXP	1	0.295768	0.021714	13.6213	0.0001	
EXPSQ	1	-0.00393406	0.0004582116	-8.5857	0.0001	
ANNHOURS	1	0.003903839	0.0002475268	15.7714	0.0001	

MODEL: MODEL01 SSE 1036.966 F RATIO 617.33
DEP VAR: LOGEARN DFE 2926 PROB>F 0.0001
MSE 0.354397 R-SQUARE 0.6280

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.582103	0.130970	-19.7153	0.0001	
SCH1	1	0.047812	0.004622765	10.3427	0.0001	
SCH2	1	0.090887	0.008790091	10.3397	0.0001	
LOGWKWRK	1	0.666876	0.046054	14.4802	0.0001	
ZY	1	-0.720216	0.421701	-1.7079	0.0878	
PUBCOW	1	-0.022928	0.029230	-0.7844	0.4329	
EXP	1	0.045281	0.002910115	15.5597	0.0001	
EXPSQ	1	-0.000673489	.00006141083	-10.9669	0.0001	
ANNHOURS	1	0.0005157323	.00003317425	15.5462	0.0001	

MODEL: MODEL01 SSE 9564.422 F RATIO 343.52
DEP VAR: EARNINGS DFE 2013 PROB>F 0.0001
MSE 4.751327 R-SQUARE 0.5772

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.401628	0.450101	-5.3358	0.0001	
SCH1	1	0.156106	0.021492	7.2635	0.0001	
SCH2	1	0.650943	0.041278	15.7699	0.0001	
LOGWKWRK	1	-0.043272	0.154578	-0.2799	0.7796	
ZY	1	-4.170683	0.534100	-7.8088	0.0001	
PUBCOW	1	0.365208	0.129770	2.8143	0.0049	
EXP	1	0.075746	0.011976	6.3250	0.0001	
EXPSQ	1	-0.00116269	0.0002730961	-4.2574	0.0001	
ANNHOURS	1	0.002992511	0.0001298024	23.0544	0.0001	

MODEL: MODEL01 SSE 560.687675 F RATIO 557.14
DEP VAR: LOGEARN DFE 2013 PROB>F 0.0001
MSE 0.278533 R-SQUARE 0.6889

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-1.787291	0.108979	-16.4004	0.0001	
SCH1	1	0.025192	0.005203588	4.8412	0.0001	
SCH2	1	0.102168	0.009994142	10.2228	0.0001	
LOGWKWRK	1	0.380515	0.037427	10.1670	0.0001	
ZY	1	-1.134651	0.129316	-8.7742	0.0001	
PUBCOW	1	0.062941	0.031420	2.0032	0.0453	
EXP	1	0.024911	0.002899549	8.5915	0.0001	
EXPSQ	1	-0.000438889	.00006612211	-6.6376	0.0001	
ANNHOURS	1	0.0007308323	0.0000314278	23.2543	0.0001	

MODEL: MODEL01 SSE 223101.8 F RATIO 660.06
DEP VAR: EARNINGS DFE 8095 PROB>F 0.0001
MSE 27.560440 R-SQUARE 0.3948

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-9.442907	0.648603	-14.5588	0.0001	
SCH1	1	0.427418	0.027754	15.4003	0.0001	
SCH2	1	1.064731	0.042101	25.2898	0.0001	
LOGWKWRK	1	0.885472	0.204480	4.3304	0.0001	
ZY	1	-5.182750	1.016340	-5.0994	0.0001	
PUBCOW	1	0.229620	0.152394	1.5068	0.1319	
EXP	1	0.311630	0.015747	19.7896	0.0001	
EXPSQ	1	-0.00448504	0.0003098269	-14.4760	0.0001	
ANNHOURS	1	0.003379787	0.0001425611	23.7076	0.0001	

MODEL: MODEL01 SSE 5717.666 F RATIO 761.53
DEP VAR: LOGEARN DFE 8095 PROB>F 0.0001
MSE 0.706321 R-SQUARE 0.4294

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.017367	0.103833	-19.4289	0.0001	
SCH1	1	0.068819	0.004443047	15.4891	0.0001	
SCH2	1	0.087723	0.006739884	13.0154	0.0001	
LOGWKWRK	1	0.393628	0.032735	12.0248	0.0001	
ZY	1	-1.227166	0.162704	-7.5423	0.0001	
PUBCOW	1	0.079567	0.024396	3.2614	0.0011	
EXP	1	0.049380	0.002520923	19.5879	0.0001	
EXPSQ	1	-0.000727767	.00004959946	-14.6729	0.0001	
ANNHOURS	1	0.0005528981	.00002282227	24.2262	0.0001	

MODEL: MODEL01 SSE 32205.56 F RATIO 891.14
DFE 5214 PROB>F 0.0001
DEP VAR: EARNINGS MSE 6.176747 R-SQUARE 0.5063

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.371190	0.315615	-7.5129	0.0001	
SCH1	1	0.148791	0.016144	9.2164	0.0001	
SCH2	1	0.547250	0.027956	19.5755	0.0001	
LOGWKWRK	1	0.141102	0.091481	1.5424	0.1230	
ZY	1	-3.615639	0.252535	-14.3174	0.0001	
PUBCOW	1	1.176941	0.092831	12.6784	0.0001	
ANNHOURS	1	0.002921371	0.0000725059	40.2915	0.0001	

MODEL: MODEL01 SSE 2938.559 F RATIO 884.82
DFE 5214 PROB>F 0.0001
DEP VAR: LOGEARN MSE 0.563590 R-SQUARE 0.5045

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-1.615994	0.095337	-16.9504	0.0001	
SCH1	1	0.055604	0.004876619	11.4021	0.0001	
SCH2	1	0.082755	0.00844452	9.7999	0.0001	
LOGWKWRK	1	0.220968	0.027633	7.9965	0.0001	
ZY	1	-0.883307	0.076282	-11.5795	0.0001	
PUBCOW	1	0.250161	0.028041	8.9212	0.0001	
ANNHOURS	1	0.0008555976	.00002190156	39.0656	0.0001	

MODEL: MODEL01 SSE 320456.5 F RATIO 897.70
DEP VAR: EARNINGS DFE 10480 PROB>F 0.0001
MSE 30.577907 R-SQUARE 0.4066

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-10.574374	0.698507	-15.1385	0.0001	
SCH1	1	0.441915	0.024428	18.0908	0.0001	
SCH2	1	1.189959	0.033807	35.1991	0.0001	
LOGWKWRK	1	1.076386	0.229366	4.6929	0.0001	
ZY	1	-6.039103	1.241140	-4.8658	0.0001	
PUBCOW	1	-0.221873	0.146422	-1.5153	0.1297	
EXP	1	0.401490	0.014553	27.5886	0.0001	
EXPSQ	1	-0.00590708	0.0002849935	-20.7271	0.0001	
ANNHOURS	1	0.003537397	0.0001485209	23.8175	0.0001	

MODEL: MODEL01 SSE 4757.111 F RATIO 1281.43
DEP VAR: LOGEARN DFE 10480 PROB>F 0.0001
MSE 0.453923 R-SQUARE 0.4945

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.442829	0.085106	-28.7035	0.0001	
SCH1	1	0.044785	0.002976246	15.0476	0.0001	
SCH2	1	0.091210	0.004118961	22.1440	0.0001	
LOGWKWRK	1	0.703614	0.027946	25.1779	0.0001	
ZY	1	-1.445896	0.151220	-9.5616	0.0001	
PUBCOW	1	-0.00259722	0.017840	-0.1456	0.8843	
EXP	1	0.053980	0.001773092	30.4439	0.0001	
EXPSQ	1	-0.000829859	.00003472338	-23.8991	0.0001	
ANNHOURS	1	0.0003668819	.00001809568	20.2746	0.0001	

MODEL: MODEL01 SSE 58120.39 F RATIO 1045.53
DFE 7582 PROB>F 0.0001
DEP VAR: EARNINGS MSE 7.665576 R-SQUARE 0.5245

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-3.333388	0.319666	-10.4277	0.0001	
SCH1	1	0.163705	0.015072	10.8616	0.0001	
SCH2	1	0.751262	0.022400	33.5387	0.0001	
LOGWKWRK	1	0.019055	0.101763	0.1872	0.8515	
ZY	1	-4.821945	0.224168	-21.5104	0.0001	
PUBCOW	1	0.762648	0.084660	9.0084	0.0001	
EXP	1	0.102024	0.007964935	12.8092	0.0001	
EXPSQ	1	-0.00153034	0.0001644358	-9.3066	0.0001	
ANNHOURS	1	0.003265171	0.0000756053	43.1871	0.0001	

MODEL: MODEL01 SSE 2799.643 F RATIO 1383.59
DFE 7582 PROB>F 0.0001
DEP VAR: LOGEARN MSE 0.369249 R-SQUARE 0.5935

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-1.706567	0.070159	-24.3243	0.0001	
SCH1	1	0.027796	0.003307921	8.4030	0.0001	
SCH2	1	0.104194	0.004916232	21.1939	0.0001	
LOGWKWRK	1	0.358805	0.022334	16.0651	0.0001	
ZY	1	-1.300592	0.049200	-26.4350	0.0001	
PUBCOW	1	0.105331	0.018581	5.6688	0.0001	
EXP	1	0.021826	0.001748112	12.4856	0.0001	
EXPSQ	1	-0.000351522	.00003608972	-9.7402	0.0001	
ANNHOURS	1	0.0007321351	.00001659355	44.1217	0.0001	

3. Model 3

MODEL: MODEL01		SSE	2828318	F RATIO	11343.61
		DFE	85842	PROB>F	0.0001
DEP VAR: EARNINGS		MSE	32.947953	R-SQUARE	0.4422

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-15.029648	0.240841	-62.4048	0.0001	
SCH	1	0.885617	0.007500742	118.0705	0.0001	
LOGWKWRK	1	1.047453	0.077749	13.4722	0.0001	
PUBCOW	1	-0.451257	0.052504	-8.5948	0.0001	
EXP	1	0.508610	0.00528315	96.2702	0.0001	
EXPSQ	1	-0.00800697	0.0001138567	-70.3250	0.0001	
ANNHOURS	1	0.00334602	.00005038088	66.4145	0.0001	

MODEL: MODEL01		SSE	37349.18	F RATIO	18918.79
		DFE	85842	PROB>F	0.0001
DEP VAR: LOGEARN		MSE	0.435092	R-SQUARE	0.5694

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.744412	0.027676	-99.1612	0.0001	
SCH	1	0.079312	0.0008619471	92.0152	0.0001	
LOGWKWRK	1	0.642621	0.008934537	71.9254	0.0001	
PUBCOW	1	0.008972857	0.006033471	1.4872	0.1370	
EXP	1	0.064988	0.0006071127	107.0451	0.0001	
EXPSQ	1	-0.00107412	.00001308383	-82.0953	0.0001	
ANNHOURS	1	0.0004261744	.00000578951	73.6114	0.0001	

ODEL: MODEL01
EP VAR: EARNINGS

SSE	559442
DFE	66934
MSE	8.358114
F RATIO	11934.34
PROB>F	0.0001
R-SQUARE	0.5169

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-6.177651	0.113641	-54.3612	0.0001	
CH	1	0.459502	0.004991319	92.0602	0.0001	
OGWKWRK	1	-0.192359	0.034473	-5.5799	0.0001	
UBCOW	1	1.228853	0.028121	43.6980	0.0001	
XP	1	0.084522	0.00281639	30.0109	0.0001	
XPSQ	1	-0.00121911	.00006399642	-19.0497	0.0001	
NNHOURS	1	0.003593252	.00002525158	142.2981	0.0001	

ODEL: MODEL01
EP VAR: LOGEARN

SSE	27403.48
DFE	66934
MSE	0.409410
F RATIO	17107.77
PROB>F	0.0001
R-SQUARE	0.6053

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-2.273192	0.025151	-90.3809	0.0001	
CH	1	0.079468	0.001104691	71.9373	0.0001	
OGWKWRK	1	0.293248	0.007629709	38.4351	0.0001	
UBCOW	1	0.217312	0.006223917	34.9156	0.0001	
XP	1	0.020679	0.0006233302	33.1747	0.0001	
XPSQ	1	-0.000347705	.00001416384	-24.5488	0.0001	
NNHOURS	1	0.0008548931	.00000558874	152.9671	0.0001	

MODEL: MODEL01
DEP VAR: EARNINGS

SSE	2647184	F RATIO	10260.75	
DFE	78233	PROB>F	0.0001	
MSE	33.837185	R-SQUARE	0.4404	

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-15.809714	0.261869	-60.3726	0.0001	
SCH	1	0.899862	0.00808462	111.3054	0.0001	
LOGWKWRK	1	1.251351	0.083690	14.9523	0.0001	
PUBCOW	1	-0.586674	0.056932	-10.3048	0.0001	
EXP	1	0.537471	0.005662019	94.9256	0.0001	
EXPSQ	1	-0.00862072	0.0001225887	-70.3223	0.0001	
ANNHOURS	1	0.003210143	.00005305757	60.5030	0.0001	

MODEL: MODEL01
DEP VAR: LOGEARN

SSE	33301.53	F RATIO	17312.58	
DFE	78233	PROB>F	0.0001	
MSE	0.425671	R-SQUARE	0.5704	

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.740354	0.029371	-93.3002	0.0001	
SCH	1	0.079557	0.0009067752	87.7361	0.0001	
LOGWKWRK	1	0.643858	0.009386686	68.5927	0.0001	
PUBCOW	1	0.005779576	0.006385548	0.9051	0.3654	
EXP	1	0.067490	0.000635055	106.2745	0.0001	
EXPSQ	1	-0.00113031	.00001374961	-82.2068	0.0001	
ANNHOURS	1	0.0004159101	.00000595096	69.8895	0.0001	

MODEL: MODEL01 SSE 492736.6 F RATIO 10531.39
DFE 59406 PROB>F 0.0001
DEP VAR: EARNINGS MSE 8.294391 R-SQUARE 0.5154

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-6.196896	0.121269	-51.1004	0.0001	
SCH	1	0.463421	0.005399145	85.8324	0.0001	
LOGWKWRK	1	-0.204101	0.036304	-5.6220	0.0001	
PUBCOW	1	1.161057	0.030440	38.1421	0.0001	
EXP	1	0.082592	0.002982277	27.6942	0.0001	
EXPSQ	1	-0.00119098	.00006816565	-17.4718	0.0001	
ANNHOURS	1	0.003597694	.00002638214	136.3685	0.0001	

MODEL: MODEL01 SSE 24349.35 F RATIO 15090.86
DFE 59406 PROB>F 0.0001
DEP VAR: LOGEARN MSE 0.409880 R-SQUARE 0.6038

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.272867	0.026958	-84.3117	0.0001	
SCH	1	0.080375	0.001200221	66.9668	0.0001	
LOGWKWRK	1	0.287000	0.008070295	35.5625	0.0001	
PUBCOW	1	0.215228	0.006766835	31.8063	0.0001	
EXP	1	0.020255	0.0006629553	30.5524	0.0001	
EXPSQ	1	-0.000336439	.00001515311	-22.2026	0.0001	
ANNHOURS	1	0.0008592923	.00000586471	146.5192	0.0001	

ODEL: MODEL01	SSE	95511.19	F RATIO	773.29	
	DFE	5444	PROB>F	0.0001	
EP VAR: EARNINGS	MSE	17.544304	R-SQUARE	0.4601	

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-8.629423	0.610324	-14.1391	0.0001	
SCH	1	0.620345	0.021987	28.2141	0.0001	
OGWKWRK	1	0.132537	0.218543	0.6065	0.5442	
UBCOW	1	0.825809	0.133967	6.1643	0.0001	
XP	1	0.252343	0.014398	17.5262	0.0001	
XPSQ	1	-0.00333942	0.0002937989	-11.3664	0.0001	
NNHOURS	1	0.003710032	0.0001686604	21.9971	0.0001	

ODEL: MODEL01	SSE	2444.731	F RATIO	1283.96	
	DFE	5444	PROB>F	0.0001	
EP VAR: LOGEARN	MSE	0.449069	R-SQUARE	0.5859	

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-2.770647	0.097645	-28.3748	0.0001	
SCH	1	0.072157	0.003517672	20.5126	0.0001	
OGWKWRK	1	0.647763	0.034964	18.5264	0.0001	
UBCOW	1	0.050855	0.021433	2.3727	0.0177	
XP	1	0.044528	0.002303523	19.3305	0.0001	
XPSQ	1	-0.000660454	.00004700441	-14.0509	0.0001	
NNHOURS	1	0.0004984078	.00002698371	18.4707	0.0001	

MODEL: MODEL01 SSE 45002.1 F RATIO 1140.37
DFE 5626 PROB>F 0.0001
DEP VAR: EARNINGS MSE 7.998951 R-SQUARE 0.5488

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-7.594145	0.384584	-19.7464	0.0001	
SCH	1	0.529748	0.016820	31.4959	0.0001	
LOGWKWRK	1	0.153432	0.125379	1.2237	0.2211	
PUBCOW	1	1.452681	0.085150	17.0603	0.0001	
EXP	1	0.091319	0.009688686	9.4253	0.0001	
EXPSQ	1	-0.00119236	0.0002073331	-5.7510	0.0001	
ANNHOURS	1	0.003226525	0.0000972854	33.1656	0.0001	

MODEL: MODEL01 SSE 1962.618 F RATIO 1790.70
DFE 5626 PROB>F 0.0001
DEP VAR: LOGEARN MSE 0.348848 R-SQUARE 0.6563

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.553212	0.080314	-31.7903	0.0001	
SCH	1	0.089179	0.003512503	25.3891	0.0001	
LOGWKWRK	1	0.382731	0.026183	14.6174	0.0001	
PUBCOW	1	0.202898	0.017782	11.4101	0.0001	
EXP	1	0.021811	0.002023328	10.7796	0.0001	
EXPSQ	1	-0.000392215	.00004329823	-9.0585	0.0001	
ANNHOURS	1	0.0007910847	.00002031651	38.9380	0.0001	

MODEL: MODEL01 SSE 58609.97 F RATIO 389.12
DFE 2934 PROB>F 0.0001
DEP VAR: EARNINGS MSE 19.976132 R-SQUARE 0.4431

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-8.011171	0.957357	-8.3680	0.0001	
SCH	1	0.577620	0.027372	21.1026	0.0001	
LOGWKWRK	1	-0.043666	0.344481	-0.1268	0.8991	
PUBCOW	1	0.046967	0.217215	0.2162	0.8288	
EXP	1	0.301178	0.021799	13.8162	0.0001	
EXPSQ	1	-0.00381956	0.0004601894	-8.3000	0.0001	
ANNHOURS	1	0.003972732	0.0002486938	15.9744	0.0001	

MODEL: MODEL01 SSE 1043.992 F RATIO 828.45
DFE 2934 PROB>F 0.0001
DEP VAR: LOGEARN MSE 0.355826 R-SQUARE 0.6288

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.699049	0.127772	-21.1239	0.0001	
SCH	1	0.059212	0.003653165	16.2085	0.0001	
LOGWKWRK	1	0.666390	0.045976	14.4944	0.0001	
PUBCOW	1	-0.00865978	0.028990	-0.2987	0.7652	
EXP	1	0.045919	0.002909364	15.7833	0.0001	
EXPSQ	1	-0.000667143	.00006141854	-10.8622	0.0001	
ANNHOURS	1	0.0005199169	.00003319157	15.6641	0.0001	

DEL: MODEL01		SSE	10362.31	F RATIO	402.96
		DFE	2023	PROB>F	0.0001
EP VAR: EARNINGS		MSE	5.122249	R-SQUARE	0.5444

RIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
ERCEPT	1	-3.217663	0.450071	-7.1492	0.0001	
CH	1	0.272959	0.018055	15.1179	0.0001	
GWKWRK	1	-0.184824	0.159653	-1.1577	0.2471	
UBCOW	1	0.589093	0.132784	4.4365	0.0001	
XP	1	0.069041	0.012392	5.5716	0.0001	
XPSQ	1	-0.000818144	0.0002815136	-2.9062	0.0037	
NNHOURS	1	0.003128073	0.0001340189	23.3405	0.0001	

ODEL: MODEL01		SSE	609.274889	F RATIO	679.78
		DFE	2023	PROB>F	0.0001
EP VAR: LOGEARN		MSE	0.301174	R-SQUARE	0.6685

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-1.881538	0.109134	-17.2407	0.0001	
CH	1	0.042150	0.004378072	9.6276	0.0001	
GWKWRK	1	0.345256	0.038713	8.9184	0.0001	
BCOW	1	0.097464	0.032198	3.0270	0.0025	
XP	1	0.023339	0.003004709	7.7673	0.0001	
XPSQ	1	-0.000375206	.00006826179	-5.4966	0.0001	
NNHOURS	1	0.0007687534	.00003249708	23.6561	0.0001	

ODEL: MODEL01		SSE	227840.2	F RATIO	847.90
		DFE	8124	PROB>F	0.0001
EP VAR: EARNINGS		MSE	28.045319	R-SQUARE	0.3851

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-11.348846	0.624515	-18.1723	0.0001	
SCH	1	0.644616	0.020700	31.1416	0.0001	
LOGWKWRK	1	0.810728	0.204738	3.9598	0.0001	
UBCOW	1	0.455431	0.152506	2.9863	0.0028	
EXP	1	0.302204	0.015809	19.1159	0.0001	
EXPSQ	1	-0.00418929	0.0003106463	-13.4857	0.0001	
NNHOURS	1	0.003459389	0.0001430293	24.1866	0.0001	

MODEL: MODEL01		SSE	5841.188	F RATIO	1020.91
		DFE	8124	PROB>F	0.0001
DEP VAR: LOGEARN		MSE	0.719004	R-SQUARE	0.4299

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-2.115934	0.099995	-21.1604	0.0001	
SCH	1	0.076891	0.003314331	23.1996	0.0001	
LOGWKWRK	1	0.387444	0.032782	11.8189	0.0001	
UBCOW	1	0.090181	0.024419	3.6931	0.0002	
XP	1	0.050156	0.002531287	19.8144	0.0001	
XPSQ	1	-0.000737026	.00004973952	-14.8177	0.0001	
NHOURS	1	0.0005664272	.00002290132	24.7334	0.0001	

MODEL: MODEL01		SSE	33824.37	F RATIO	824.47	
		DFE	5251	PROB>F	0.0001	
DEP VAR: EARNINGS		MSE	6.441510	R-SQUARE	0.4851	
VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-3.922473	0.309847	-12.6594	0.0001	
SCH	1	0.293826	0.013808	21.2794	0.0001	
LOGWKWRK	1	-0.082927	0.093575	-0.8862	0.3756	
PUBCOW	1	1.421420	0.093101	15.2674	0.0001	
EXP	1	0.048282	0.008921476	5.4119	0.0001	
EXPSQ	1	-0.000589381	0.0001802806	-3.2692	0.0011	
ANNHOURS	1	0.003005529	0.0000737634	40.7455	0.0001	

MODEL: MODEL01		SSE	3031.749	F RATIO	868.53	
		DFE	5251	PROB>F	0.0001	
DEP VAR: LOGEARN		MSE	0.577366	R-SQUARE	0.4981	
VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-1.825355	0.092764	-19.6774	0.0001	
SCH	1	0.070061	0.004133938	16.9478	0.0001	
LOGWKWRK	1	0.164158	0.028015	5.8596	0.0001	
PUBCOW	1	0.278398	0.027873	9.9880	0.0001	
EXP	1	0.016277	0.002670967	6.0942	0.0001	
EXPSQ	1	-0.000233566	.00005397352	-4.3274	0.0001	
ANNHOURS	1	0.0008757165	.00002208375	39.6543	0.0001	

MODEL: MODEL01		SSE	329386.7	F RATIO	1126.14	
		DFE	10497	PROB>F	0.0001	
DEP VAR: EARNINGS		MSE	31.379129	R-SQUARE	0.3916	
VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-13.028063	0.684415	-19.0353	0.0001	
SCH	1	0.721946	0.017598	41.0232	0.0001	
LOGWKWRK	1	1.004895	0.231143	4.3475	0.0001	
PUBCOW	1	0.037426	0.147304	0.2541	0.7994	
EXP	1	0.390227	0.014672	26.5959	0.0001	
EXPSQ	1	-0.00556234	0.0002870664	-19.3765	0.0001	
ANNHOURS	1	0.003653571	0.0001500392	24.3508	0.0001	

MODEL: MODEL01		SSE	4836.184	F RATIO	1687.97	
		DFE	10497	PROB>F	0.0001	
DEP VAR: LOGEARN		MSE	0.460721	R-SQUARE	0.4910	
VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.639661	0.082931	-31.8295	0.0001	
SCH	1	0.062824	0.002132422	29.4615	0.0001	
LOGWKWRK	1	0.706672	0.028008	25.2312	0.0001	
PUBCOW	1	0.014246	0.017849	0.7981	0.4248	
EXP	1	0.054190	0.001777874	30.4802	0.0001	
EXPSQ	1	-0.000822985	.00003478409	-23.6598	0.0001	
ANNHOURS	1	0.0003717963	.00001818039	20.4504	0.0001	

MODEL: MODEL01 | SSE 64918.78 | F RATIO 1131.17
DEP VAR: EARNINGS | DFE 7610 | PROB>F 0.0001
| MSE 8.530721 | R-SQUARE 0.4714

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-4.596754	0.323545	-14.2075	0.0001	
SCH	1	0.360906	0.011925	30.2658	0.0001	
LOGWKWRK	1	-0.221105	0.106311	-2.0798	0.0376	
PUBCOW	1	1.131447	0.088125	12.8392	0.0001	
EXP	1	0.080363	0.008334313	9.6424	0.0001	
EXPSQ	1	-0.00105373	0.0001716914	-6.1374	0.0001	
ANNHOURS	1	0.00348657	.00007918883	44.0286	0.0001	

MODEL: MODEL01 | SSE 3132.589 | F RATIO 1548.42
DEP VAR: LOGEARN | DFE 7610 | PROB>F 0.0001
| MSE 0.411641 | R-SQUARE 0.5497

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-1.823008	0.071072	-25.6500	0.0001	
SCH	1	0.053592	0.002619442	20.4593	0.0001	
LOGWKWRK	1	0.303460	0.023353	12.9944	0.0001	
PUBCOW	1	0.170756	0.019358	8.8209	0.0001	
EXP	1	0.018396	0.001830781	10.0480	0.0001	
EXPSQ	1	-0.000282141	.00003771508	-7.4809	0.0001	
ANNHOURS	1	0.0007797308	.00001739524	44.8244	0.0001	

3a. Model 3

MODEL2 WITH ZY

MODEL: MODEL01 SSE 2429633 F RATIO 8683.05
DEP VAR: EARNINGS DFE 74898 PROB>F 0.0001
MSE 32.439225 R-SQUARE 0.4480

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-15.698207	0.270670	-57.9977	0.0001	
SCH	1	0.887940	0.008094132	109.7017	0.0001	
LOGWKWRK	1	1.169159	0.086544	13.5094	0.0001	
ZY	1	-3.860593	0.791067	-4.8802	0.0001	
ANNHOURS	1	0.003496103	.00005494387	63.6305	0.0001	
PUBCOW	1	-0.686561	0.056017	-12.2563	0.0001	
EXP	1	0.524892	0.005735979	91.5087	0.0001	
EXPSQ	1	-0.00838315	0.0001244993	-67.3349	0.0001	

MODEL: MODEL01 SSE 25274 F RATIO 16897.30
DEP VAR: LOGEARN DFE 74898 PROB>F 0.0001
MSE 0.337446 R-SQUARE 0.6123

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.564800	0.027606	-92.9068	0.0001	
SCH	1	0.073565	0.0008255377	89.1121	0.0001	
LOGWKWRK	1	0.613739	0.008826818	69.5312	0.0001	
ZY	1	-1.217015	0.080683	-15.0840	0.0001	
ANNHOURS	1	0.000461349	.00000560384	82.3273	0.0001	
PUBCOW	1	-0.018560	0.005713272	-3.2486	0.0012	
EXP	1	0.061925	0.0005850246	105.8503	0.0001	
EXPSQ	1	-0.00101741	.00001269794	-80.1240	0.0001	

MODEL: MODEL01 SSE 454680.5 F RATIO 9734.30
DFE 58234 PROB>F 0.0001
DEP VAR: EARNINGS MSE 7.807818 R-SQUARE 0.5392

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-6.602981	0.120828	-54.6477	0.0001	
SCH	1	0.471133	0.005301835	88.8622	0.0001	
LOGWKWRK	1	-0.094627	0.036283	-2.6080	0.0091	
ZY	1	-5.004848	0.109973	-45.5099	0.0001	
ANNHOURS	1	0.003552361	.00002623505	135.4052	0.0001	
PUBCOW	1	1.012734	0.029689	34.1109	0.0001	
EXP	1	0.093963	0.002937784	31.9843	0.0001	
EXPSQ	1	-0.00136703	0.0000671194	-20.3671	0.0001	

MODEL: MODEL01 SSE 21191.05 F RATIO 14513.35
DFE 58234 PROB>F 0.0001
DEP VAR: LOGEARN MSE 0.363895 R-SQUARE 0.6356

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.346144	0.026085	-89.9421	0.0001	
SCH	1	0.080345	0.001144588	70.1952	0.0001	
LOGWKWRK	1	0.321188	0.007832934	41.0048	0.0001	
ZY	1	-1.285218	0.023741	-54.1338	0.0001	
ANNHOURS	1	0.0008377089	.00000566376	147.9068	0.0001	
PUBCOW	1	0.175357	0.006409518	27.3588	0.0001	
EXP	1	0.022407	0.0006342245	35.3291	0.0001	
EXPSQ	1	-0.000368592	.00001449009	-25.4375	0.0001	

FULL YEAR WORKERS, AGES 25-64

STATISTICAL ANALYSIS SYSTEM 11:05 MONDAY, JANUARY 7,
SEX=1

MODEL:	MODEL01	SSE	2758841	F RATIO	3517.83
		DFE	65696	PROB>F	0.0001
DEP VAR:	EARNINGS	MSE	41.994052	R-SQUARE	0.2432

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-76.736024	6.081960	-12.6170	0.0001	
SCH	1	1.059552	0.00943668	112.2801	0.0001	
LOGWKWRK	1	15.926215	1.544614	10.3108	0.0001	
ZY	1	-7.244841	0.674342	-10.7436	0.0001	
PUBCOW	1	-0.970809	0.065566	-14.8067	0.0001	
EXP	1	0.772785	0.009392628	82.2757	0.0001	
EXPSQ	1	-0.00873929	0.0001270778	-68.7712	0.0001	

MODEL:	MODEL01	SSE	29545.23	F RATIO	2409.16
		DFE	65696	PROB>F	0.0001
DEP VAR:	LOGEARN	MSE	0.449726	R-SQUARE	0.1803

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-5.416023	0.629396	-8.6051	0.0001	
SCH	1	0.073946	0.0009765614	75.7205	0.0001	
LOGWKWRK	1	1.423438	0.159845	8.9051	0.0001	
ZY	1	-1.894917	0.069785	-27.1537	0.0001	
PUBCOW	1	0.006176797	0.006785101	0.9103	0.3626	
EXP	1	0.076333	0.0009720026	78.5319	0.0001	
EXPSQ	1	-0.000943972	.00001315073	-71.7810	0.0001	

F4

MODEL: MODEL01 SSE 354466.9 F RATIO 2029.71
DFE 31873 PROB>F 0.0001
DEP VAR: EARNINGS MSE 11.121227 R-SQUARE 0.2765

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-76.657219	4.076289	-18.8056	0.0001	
SCH	1	0.618794	0.00851491	72.6719	0.0001	
LOGWKWRK	1	18.417007	1.035062	17.7931	0.0001	
ZY	1	-7.384337	0.151121	-48.8638	0.0001	
PUBCOW	1	1.211665	0.045805	26.4529	0.0001	
EXP	1	0.212543	0.006876423	30.9090	0.0001	
EXPSQ	1	-0.00243674	.00009690097	-25.1467	0.0001	

MODEL: MODEL01 SSE 9481.804 F RATIO 2002.09
DFE 31873 PROB>F 0.0001
DEP VAR: LOGEARN MSE 0.297487 R-SQUARE 0.2737

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-11.780748	0.666688	-17.6706	0.0001	
SCH	1	0.070513	0.001392636	50.6325	0.0001	
LOGWKWRK	1	3.111142	0.169287	18.3779	0.0001	
ZY	1	-1.861355	0.024716	-75.3090	0.0001	
PUBCOW	1	0.182903	0.007491477	24.4148	0.0001	
EXP	1	0.031613	0.001124657	28.1090	0.0001	
EXPSQ	1	-0.000406347	.00001584841	-25.6396	0.0001	

3b. Model 3

ODEL: MODEL01 SSE 12929.65 F RATIO 498.62
EP VAR: EARNINGS DFE 3984 PROB>F 0.0001
MSE 3.245393 R-SQUARE 0.4289

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-5.114816	0.262854	-19.4588	0.0001	
CH	1	0.437821	0.017391	25.1749	0.0001	
OGWKWRK	1	0.115227	0.057455	2.0055	0.0450	
UBCOW	1	-0.016572	0.089445	-0.1853	0.8530	
EXP	1	0.221567	0.116450	1.9027	0.0572	
EXPSQ	1	-0.023554	0.052752	-0.4465	0.6553	
ANNHOURS	1	0.001815729	.00006574372	27.6183	0.0001	

MODEL: MODEL01 SSE 1683.726 F RATIO 695.80
EP VAR: LOGEARN DFE 3984 PROB>F 0.0001
MSE 0.422622 R-SQUARE 0.5117

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-3.131573	0.094854	-33.0146	0.0001	
SCH	1	0.168791	0.006275828	26.8955	0.0001	
OGWKWRK	1	0.274791	0.020733	13.2535	0.0001	
BCOW	1	-0.065003	0.032278	-2.0139	0.0441	
XP	1	0.140908	0.042022	3.3531	0.0008	
XPSQ	1	0.010452	0.019036	0.5491	0.5830	
NNHOURS	1	0.0006317032	.00002372448	26.6266	0.0001	

MODEL: MODEL01 — SSE 163837.6 — F RATIO 3339.75
DFE 15374 — PROB>F 0.0001
DEP VAR: EARNINGS — MSE 10.656798 — R-SQUARE 0.5659

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-9.076389	0.278083	-32.6392	0.0001	
SCH	1	0.618288	0.012009	51.4855	0.0001	
LOGWKWRK	1	0.248064	0.081316	3.0506	0.0023	
PUBCOW	1	-0.160486	0.075563	-2.1239	0.0337	
EXP	1	0.690023	0.096799	7.1284	0.0001	
EXPSQ	1	-0.013945	0.015962	-0.8736	0.3823	
ANNHOURS	1	0.003028615	.00006280818	48.2201	0.0001	

MODEL: MODEL01 — SSE 5359.672 — F RATIO 5822.09
DFE 15374 — PROB>F 0.0001
DEP VAR: LOGEARN — MSE 0.348619 — R-SQUARE 0.6944

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-3.065719	0.050296	-60.9531	0.0001	
SCH	1	0.114473	0.002172042	52.7027	0.0001	
LOGWKWRK	1	0.426525	0.014707	29.0005	0.0001	
PUBCOW	1	-0.066400	0.013667	-4.8584	0.0001	
EXP	1	0.326087	0.017508	18.6252	0.0001	
EXPSQ	1	-0.033327	0.002886949	-11.5441	0.0001	
ANNHOURS	1	0.0005850022	.00001136001	51.4966	0.0001	

ODEL:	MODEL01	SSE	287045.8	F RATIO	1257.30
		DFE	12202	PROB>F	0.0001
EP VAR:	EARNINGS	MSE	23.524491	R-SQUARE	0.3820

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-20.856412	1.754193	-11.8895	0.0001	
SCH	1	0.946032	0.018730	50.5090	0.0001	
OGWKWRK	1	2.218365	0.215301	10.3036	0.0001	
UBCOW	1	-0.707841	0.116317	-6.0854	0.0001	
XP	1	0.599825	0.420426	1.4267	0.1537	
XPSQ	1	-0.00168831	0.026298	-0.0642	0.9488	
NNHOURS	1	0.003086975	0.0001299477	23.7555	0.0001	

ODEL:	MODEL01	SSE	3614.8	F RATIO	1711.47
		DFE	12202	PROB>F	0.0001
DEP VAR:	LOGEARN	MSE	0.296247	R-SQUARE	0.4570

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-3.147895	0.196854	-15.9910	0.0001	
SCH	1	0.083069	0.002101858	39.5215	0.0001	
OGWKWRK	1	0.824873	0.024161	34.1409	0.0001	
UBCOW	1	-0.025731	0.013053	-1.9712	0.0487	
XP	1	0.102453	0.047180	2.1715	0.0299	
XPSQ	1	-0.00299853	0.002951104	-1.0161	0.3096	
NNHOURS	1	0.0002442116	.00001458261	16.7468	0.0001	

MODEL: MODEL01 SSE 321039 F RATIO 760.36
DFE 9297 PROB>F 0.0001
DEP VAR: EARNINGS MSE 34.531461 R-SQUARE 0.3292

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-29.124508	6.147828	-4.7374	0.0001	
SCH	1	1.153819	0.024568	46.9637	0.0001	
LOGWKWRK	1	3.566276	0.325909	10.9425	0.0001	
PUBCOW	1	-1.368335	0.162490	-8.4210	0.0001	
EXP	1	0.882542	0.945471	0.9334	0.3506	
EXPSQ	1	-0.020270	0.036418	-0.5566	0.5778	
ANNHOURS	1	0.002793451	0.0001763342	15.8418	0.0001	

MODEL: MODEL01 SSE 2801.131 F RATIO 963.28
DFE 9297 PROB>F 0.0001
DEP VAR: LOGEARN MSE 0.301294 R-SQUARE 0.3834

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-3.609907	0.574261	-6.2862	0.0001	
SCH	1	0.084749	0.002294895	36.9295	0.0001	
LOGWKWRK	1	0.960396	0.030443	31.5475	0.0001	
PUBCOW	1	-0.058075	0.015178	-3.8262	0.0001	
EXP	1	0.115554	0.088315	1.3084	0.1908	
EXPSQ	1	-0.00343709	0.003401743	-1.0104	0.3123	
ANNHOURS	1	0.0001524437	.00001647117	9.2552	0.0001	

ODEL: MODEL01 SSE 323487.6 F RATIO 658.62
EP VAR: EARNINGS DFE 8008 PROB>F 0.0001
MSE 40.395552 R-SQUARE 0.3304

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-68.155146	13.713579	-4.9699	0.0001	
SCH	1	1.234196	0.026923	45.8420	0.0001	
OGWKWRK	1	4.401944	0.397180	11.0830	0.0001	
UBCOW	1	-1.285813	0.193156	-6.6569	0.0001	
XP	1	4.667655	1.523981	3.0628	0.0022	
XPSQ	1	-0.121452	0.042341	-2.8684	0.0041	
NHOURS	1	0.002630622	0.0002044535	12.8666	0.0001	

ODEL: MODEL01 SSE 2801.862 F RATIO 710.82
EP VAR: LOGEARN DFE 8008 PROB>F 0.0001
MSE 0.349883 R-SQUARE 0.3475

RIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-4.739397	1.276278	-3.7135	0.0002	
SCH	1	0.087700	0.002505622	35.0012	0.0001	
OGWKWRK	1	1.019333	0.036964	27.5762	0.0001	
UBCOW	1	-0.059237	0.017976	-3.2953	0.0010	
XP	1	0.193398	0.141832	1.3636	0.1727	
XPSQ	1	-0.0048179	0.003940539	-1.2227	0.2215	
NHOURS	1	0.0001285355	.00001902783	6.7551	0.0001	

MODEL: MODEL01 SSE 1644058 F RATIO 2405.12
DFE 36942 PROB>F 0.0001
DEP VAR: EARNINGS MSE 44.503768 R-SQUARE 0.2809

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-13.006960	0.784554	-16.5788	0.0001	
SCH	1	0.879217	0.011965	73.4810	0.0001	
LOGWKWRK	1	2.738562	0.174932	15.6550	0.0001	
PUBCOW	1	-0.411852	0.090585	-4.5466	0.0001	
EXP	1	-0.021050	0.035360	-0.5953	0.5516	
EXPSQ	1	-0.000192331	0.0005091834	-0.3777	0.7056	
ANNHOURS	1	0.003293372	.00009780247	33.6737	0.0001	

MODEL: MODEL01 SSE 18616.71 F RATIO 2435.63
DFE 36942 PROB>F 0.0001
DEP VAR: LOGEARN MSE 0.503944 R-SQUARE 0.2835

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.035544	0.083486	-24.3818	0.0001	
SCH	1	0.062600	0.00127325	49.1659	0.0001	
LOGWKWRK	1	0.770808	0.018615	41.4080	0.0001	
PUBCOW	1	0.034441	0.009639379	3.5730	0.0004	
EXP	1	0.020996	0.003762756	5.5801	0.0001	
EXPSQ	1	-0.000396666	0.0000541835	-7.3208	0.0001	
ANNHOURS	1	0.000239208	.00001040741	22.9844	0.0001	

ODEL:	MODEL01	SSE	12985.78	F RATIO	740.76
		DFE	3986	PROB>F	0.0001
EP VAR:	EARNINGS	MSE	3.257847	R-SQUARE	0.4264

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-5.048018	0.261660	-19.2923	0.0001	
CH	1	0.428387	0.017198	24.9092	0.0001	
OGWKWRK	1	0.109586	0.057548	1.9042	0.0570	
UBCOW	1	-0.0065696	0.089583	-0.0733	0.9415	
NNHOURS	1	0.001836479	.00006567926	27.9613	0.0001	

ODEL:	MODEL01	SSE	1695.546	F RATIO	1029.99
		DFE	3986	PROB>F	0.0001
EP VAR:	LOGEARN	MSE	0.425375	R-SQUARE	0.5083

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-3.111663	0.094549	-32.9105	0.0001	
CH	1	0.165214	0.006214381	26.5857	0.0001	
OGWKWRK	1	0.272139	0.020795	13.0869	0.0001	
UBCOW	1	-0.060281	0.032370	-1.8622	0.0626	
NNHOURS	1	0.0006411176	.00002373281	27.0140	0.0001	

MODEL: MODEL01 — SSE 173931.9 — F RATIO 4496.41
DFE 15376 — PROB>F 0.0001
DEP VAR: EARNINGS — MSE 11.311910 — R-SQUARE 0.5391

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-7.871356	0.264308	-29.7810	0.0001	
SCH	1	0.647267	0.012329	52.5005	0.0001	
LOGWKWRK	1	0.068688	0.083491	0.8227	0.4107	
PUBCOW	1	-0.062087	0.077781	-0.7982	0.4247	
ANNHOURS	1	0.003557099	.00006175611	57.5992	0.0001	

MODEL: MODEL01 — SSE 5855.848 — F RATIO 7668.49
DFE 15376 — PROB>F 0.0001
DEP VAR: LOGEARN — MSE 0.380843 — R-SQUARE 0.6661

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.619033	0.048497	-54.0039	0.0001	
SCH	1	0.121335	0.002262173	53.6367	0.0001	
LOGWKWRK	1	0.381953	0.015320	24.9324	0.0001	
PUBCOW	1	-0.045884	0.014272	-3.2150	0.0013	
ANNHOURS	1	0.0007118966	.00001133144	62.8249	0.0001	

ODEL: MODEL01 SSE 294969.7 F RATIO 1753.63
DFE 12204 PROB>F 0.0001
EP VAR: EARNINGS MSE 24.169918 R-SQUARE 0.3650

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-16.236345	0.668346	-24.2933	0.0001	
CH	1	0.929672	0.018963	49.0250	0.0001	
OGWKWRK	1	2.217498	0.218203	10.1626	0.0001	
UBCOW	1	-0.687527	0.117896	-5.8316	0.0001	
NNHOURS	1	0.003200753	0.0001315541	24.3303	0.0001	

ODEL: MODEL01 SSE 3687.199 F RATIO 2457.30
DFE 12204 PROB>F 0.0001
EP VAR: LOGEARN MSE 0.302130 R-SQUARE 0.4461

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-2.533836	0.074724	-33.9092	0.0001	
CH	1	0.081521	0.002120175	38.4503	0.0001	
OGWKWRK	1	0.825185	0.024396	33.8245	0.0001	
UBCOW	1	-0.023774	0.013181	-1.8036	0.0713	
NNHOURS	1	0.000254861	.00001470835	17.3276	0.0001	

MODEL: MODEL01 SSE 323468.7 F RATIO 1114.76
DEP VAR: EARNINGS DFE 9299 PROB>F 0.0001
MSE 34.785325 R-SQUARE 0.3241

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-21.187692	1.041301	-20.3473	0.0001	
SCH	1	1.138298	0.024586	46.2983	0.0001	
LOGWKWRK	1	3.602984	0.327058	11.0163	0.0001	
PUBCOW	1	-1.354136	0.163075	-8.3038	0.0001	
ANNHOURS	1	0.002840357	0.000176885	16.0576	0.0001	

MODEL: MODEL01 SSE 2814.693 F RATIO 1427.07
DEP VAR: LOGEARN DFE 9299 PROB>F 0.0001
MSE 0.302688 R-SQUARE 0.3804

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.701489	0.097135	-27.8117	0.0001	
SCH	1	0.083612	0.002293453	36.4567	0.0001	
LOGWKWRK	1	0.963308	0.030509	31.5748	0.0001	
PUBCOW	1	-0.057070	0.015212	-3.7516	0.0002	
ANNHOURS	1	0.0001558511	.00001650024	9.4454	0.0001	

ODEL: MODEL01 SSE 325244.2 F RATIO 972.03
DFE 8010 PROB>F 0.0001
EP VAR: EARNINGS MSE 40.604774 R-SQUARE 0.3268

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-23.598373	1.280944	-18.4226	0.0001	
SCH	1	1.227836	0.026975	45.5174	0.0001	
OGWKWRK	1	4.361412	0.398159	10.9539	0.0001	
UBCOW	1	-1.254334	0.193596	-6.4791	0.0001	
NNHOURS	1	0.002671863	0.0002048836	13.0409	0.0001	

ODEL: MODEL01 SSE 2808.827 F RATIO 1058.88
DFE 8010 PROB>F 0.0001
EP VAR: LOGEARN MSE 0.350665 R-SQUARE 0.3459

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-2.820676	0.119039	-23.6955	0.0001	
CH	1	0.087310	0.002506805	34.8291	0.0001	
OGWKWRK	1	1.016838	0.037001	27.4813	0.0001	
UBCOW	1	-0.057288	0.017991	-3.1843	0.0015	
NNHOURS	1	0.0001310171	.00001903991	6.8812	0.0001	

MODEL: MODEL01 SSE 1646467 F RATIO 3589.09
DEP VAR: EARNINGS DFE 36944 PROB>F 0.0001
MSE 44.566555 R-SQUARE 0.2798

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-14.366469	0.547610	-26.2349	0.0001	
SCH	1	0.912660	0.010906	83.6869	0.0001	
LOGWKWRK	1	2.722312	0.174948	15.5607	0.0001	
PUBCOW	1	-0.433625	0.090595	-4.7864	0.0001	
ANNHOURS	1	0.003347288	.00009759093	34.2992	0.0001	

MODEL: MODEL01 SSE 18725.04 F RATIO 3579.08
DEP VAR: LOGEARN DFE 36944 PROB>F 0.0001
MSE 0.506849 R-SQUARE 0.2793

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-1.916175	0.058399	-32.8117	0.0001	
SCH	1	0.070289	0.001163018	60.4365	0.0001	
LOGWKWRK	1	0.771782	0.018657	41.3667	0.0001	
PUBCOW	1	0.029653	0.009661426	3.0692	0.0021	
ANNHOURS	1	0.0002501176	.00001040745	24.0326	0.0001	

ODEL: MODEL01		SSE	8141.263	F RATIO	590.33
		DFE	3668	PROB>F	0.0001
EP VAR: EARNINGS		MSE	2.219537	R-SQUARE	0.4913

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-4.395205	0.226309	-19.4213	0.0001	
SCH	1	0.370411	0.014793	25.0402	0.0001	
OGWKWRK	1	0.033773	0.051849	0.6514	0.5148	
UBCOW	1	0.286324	0.069969	4.0922	0.0001	
XP	1	0.106360	0.100331	1.0601	0.2892	
XPSQ	1	-0.044664	0.050274	-0.8884	0.3744	
NNHOURS	1	0.001895554	.00006325078	29.9689	0.0001	

ODEL: MODEL01		SSE	1381.137	F RATIO	824.33
		DFE	3668	PROB>F	0.0001
DEP VAR: LOGEARN		MSE	0.376537	R-SQUARE	0.5742

RIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-3.220947	0.093212	-34.5549	0.0001	
SCH	1	0.162295	0.006092829	26.6371	0.0001	
OGWKWRK	1	0.228464	0.021356	10.6981	0.0001	
UBCOW	1	0.028012	0.028819	0.9720	0.3311	
XP	1	0.080017	0.041325	1.9363	0.0529	
XPSQ	1	-0.018771	0.020707	-0.9065	0.3647	
NNHOURS	1	0.0008084267	.00002605183	31.0315	0.0001	

MODEL: MODEL01 SSE 63693.72 F RATIO 3775.08
DFE 13974 PROB>F 0.0001
DEP VAR: EARNINGS MSE 4.558016 R-SQUARE 0.6185

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-6.831967	0.201382	-33.9255	0.0001	
SCH	1	0.474573	0.009102644	52.1357	0.0001	
LOGWKWRK	1	0.127145	0.057814	2.1992	0.0279	
PUBCOW	1	0.676023	0.047155	14.3362	0.0001	
EXP	1	0.171874	0.066023	2.6032	0.0092	
EXPSQ	1	0.011982	0.010944	1.0949	0.2736	
ANNHOURS	1	0.002844213	.00004858195	58.5446	0.0001	

MODEL: MODEL01 SSE 4044.678 F RATIO 5888.57
DFE 13974 PROB>F 0.0001
DEP VAR: LOGEARN MSE 0.289443 R-SQUARE 0.7166

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-3.000846	0.050747	-59.1331	0.0001	
SCH	1	0.117803	0.00229383	51.3563	0.0001	
LOGWKWRK	1	0.331272	0.014569	22.7382	0.0001	
PUBCOW	1	0.098196	0.011883	8.2637	0.0001	
EXP	1	0.168399	0.016638	10.1216	0.0001	
EXPSQ	1	-0.016734	0.002757812	-6.0679	0.0001	
ANNHOURS	1	0.0007803093	.00001224246	63.7380	0.0001	

DEL: MODEL01		SSE	62239.25	F RATIO	1935.14
		DFE	9080	PROB>F	0.0001
P VAR: EARNINGS		MSE	6.854543	R-SQUARE	0.5612

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-10.969732	1.065125	-10.2990	0.0001	
CH	1	0.559287	0.013796	40.5386	0.0001	
OGWKWRK	1	-0.021555	0.092586	-0.2328	0.8159	
UBCOW	1	0.938701	0.070051	13.4002	0.0001	
XP	1	0.798459	0.264093	3.0234	0.0025	
XPSQ	1	-0.041959	0.016568	-2.5324	0.0113	
NNHOURS	1	0.003725273	.00007017945	53.0821	0.0001	

ODEL: MODEL01		SSE	3308.288	F RATIO	2282.45
		DFE	9080	PROB>F	0.0001
EP VAR: LOGEARN		MSE	0.364349	R-SQUARE	0.6013

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-2.638822	0.245567	-10.7458	0.0001	
CH	1	0.081844	0.003180794	25.7308	0.0001	
OGWKWRK	1	0.397512	0.021346	18.6223	0.0001	
UBCOW	1	0.195564	0.016150	12.1089	0.0001	
XP	1	0.070932	0.060887	1.1650	0.2441	
XPSQ	1	-0.00342817	0.003819905	-0.8974	0.3695	
NNHOURS	1	0.0007668523	.00001618003	47.3950	0.0001	

MODEL: MODEL01		SSE	63870.55	F RATIO	1096.12
		DFE	6565	PROB>F	0.0001
DEP VAR: EARNINGS		MSE	9.728949	R-SQUARE	0.5004

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-5.355604	3.832817	-1.3973	0.1624	
SCH	1	0.527339	0.018255	28.8880	0.0001	
LOGWKWRK	1	-0.115316	0.117307	-0.9830	0.3256	
PUBCOW	1	1.096140	0.096976	11.3032	0.0001	
EXP	1	-0.233107	0.594308	-0.3922	0.6949	
EXPSQ	1	0.00957236	0.022915	0.4177	0.6762	
ANNHOURS	1	0.003977625	.00008538572	46.5842	0.0001	

MODEL: MODEL01		SSE	2731.413	F RATIO	1513.61
		DFE	6565	PROB>F	0.0001
DEP VAR: LOGEARN		MSE	0.416057	R-SQUARE	0.5804

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-1.810918	0.792613	-2.2847	0.0224	
SCH	1	0.073047	0.003774989	19.3502	0.0001	
LOGWKWRK	1	0.367833	0.024259	15.1629	0.0001	
PUBCOW	1	0.211205	0.020054	10.5317	0.0001	
EXP	1	-0.046769	0.122901	-0.3805	0.7036	
EXPSQ	1	0.001547322	0.004738742	0.3265	0.7440	
ANNHOURS	1	0.0008159612	.00001765748	46.2105	0.0001	

DEL: MODEL01		SSE	60068.64	F RATIO	1003.13
		DFE	6131	PROB>F	0.0001
P VAR: EARNINGS		MSE	9.797528	R-SQUARE	0.4954

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-7.024239	7.661605	-0.9168	0.3593	
CH	1	0.534881	0.018107	29.5398	0.0001	
OGWKWRK	1	-0.457609	0.122695	-3.7296	0.0002	
UBCOW	1	0.931332	0.098122	9.4916	0.0001	
XP	1	0.137357	0.854819	0.1607	0.8723	
XPSQ	1	-0.00355478	0.023751	-0.1497	0.8810	
NNHOURS	1	0.004088967	.00008598516	47.5543	0.0001	

ODEL: MODEL01		SSE	2437.949	F RATIO	1437.34
		DFE	6131	PROB>F	0.0001
EP VAR: LOGEARN		MSE	0.397643	R-SQUARE	0.5845

RIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-1.515733	1.543505	-0.9820	0.3261	
CH	1	0.077052	0.003647856	21.1225	0.0001	
OGWKWRK	1	0.277422	0.024718	11.2234	0.0001	
UBCOW	1	0.198048	0.019768	10.0188	0.0001	
XP	1	-0.054706	0.172212	-0.3177	0.7507	
XPSQ	1	0.001689784	0.004784838	0.3532	0.7240	
NNHOURS	1	0.0008633608	.00001732255	49.8403	0.0001	

MODEL: MODEL01	SSE	289560.8	F RATIO	3668.53
	DFE	27481	PROB>F	0.0001
DEP VAR: EARNINGS	MSE	10.536762	R-SQUARE	0.4447

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-4.624889	0.405565	-11.4036	0.0001	
SCH	1	0.443932	0.007986686	55.5840	0.0001	
LOGWKWRK	1	-0.186514	0.067017	-2.7831	0.0054	
PUBCOW	1	1.685278	0.048094	35.0417	0.0001	
EXP	1	-0.033708	0.021442	-1.5720	0.1160	
EXPSQ	1	0.0006662422	0.000313438	2.1256	0.0335	
ANNHOURS	1	0.003702224	.00004281673	86.4668	0.0001	

MODEL: MODEL01	SSE	12742.78	F RATIO	4471.01
	DFE	27481	PROB>F	0.0001
DEP VAR: LOGEARN	MSE	0.463694	R-SQUARE	0.4940

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-1.799470	0.085079	-21.1506	0.0001	
SCH	1	0.060780	0.00167544	36.2770	0.0001	
LOGWKWRK	1	0.255472	0.014059	18.1719	0.0001	
PUBCOW	1	0.294096	0.010089	29.1501	0.0001	
EXP	1	0.010390	0.004498119	2.3098	0.0209	
EXPSQ	1	-0.000154016	.00006575275	-2.3423	0.0192	
ANNHOURS	1	0.0008307757	.00000898205	92.4928	0.0001	

ODEL: MODEL01		SSE	8167.087	F RATIO	880.28
		DFE	3670	PROB>F	0.0001
EP VAR: EARNINGS		MSE	2.225364	R-SQUARE	0.4896

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-4.324705	0.225301	-19.1952	0.0001	
SCH	1	0.362794	0.014635	24.7889	0.0001	
OGWKWRK	1	0.025893	0.051862	0.4993	0.6176	
UBCOW	1	0.300638	0.069931	4.2990	0.0001	
ANNHOURS	1	0.001913186	0.0000630484	30.3447	0.0001	

ODEL: MODEL01		SSE	1390.564	F RATIO	1222.56
		DFE	3670	PROB>F	0.0001
EP VAR: LOGEARN		MSE	0.378900	R-SQUARE	0.5713

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-3.180613	0.092966	-34.2125	0.0001	
CH	1	0.157783	0.006038996	26.1274	0.0001	
OGWKWRK	1	0.223617	0.021400	10.4495	0.0001	
UBCOW	1	0.036528	0.028856	1.2659	0.2056	
NNHOURS	1	0.0008195539	.00002601573	31.5022	0.0001	

MODEL: MODEL01 SSE 65267.77 F RATIO 5442.58
DFE 13976 PROB>F 0.0001
DEP VAR: EARNINGS MSE 4.669989 R-SQUARE 0.6090

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-6.299991	0.186996	-33.6906	0.0001	
SCH	1	0.484622	0.009187132	52.7501	0.0001	
LOGWKWRK	1	0.041083	0.058135	0.7067	0.4798	
PUBCOW	1	0.690731	0.047721	14.4745	0.0001	
ANNHOURS	1	0.003011738	.00004764473	63.2124	0.0001	

MODEL: MODEL01 SSE 4183.739 F RATIO 8424.35
DFE 13976 PROB>F 0.0001
DEP VAR: LOGEARN MSE 0.299352 R-SQUARE 0.7068

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.714047	0.047344	-57.3261	0.0001	
SCH	1	0.121412	0.002326017	52.1975	0.0001	
LOGWKWRK	1	0.298443	0.014719	20.2764	0.0001	
PUBCOW	1	0.101303	0.012082	8.3846	0.0001	
ANNHOURS	1	0.0008418995	.00001206279	69.7931	0.0001	

ODEL: MODEL01 SSE 62589 F RATIO 2874.45
DFE 9082 PROB>F 0.0001
EP VAR: EARNINGS MSE 6.891543 R-SQUARE 0.5587

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-7.349309	0.292096	-25.1606	0.0001	
SCH	1	0.554228	0.013813	40.1247	0.0001	
OGWKWRK	1	-0.00235462	0.092796	-0.0254	0.9798	
UBCOW	1	0.950565	0.070211	13.5388	0.0001	
NNHOURS	1	0.003707819	.00007032395	52.7248	0.0001	

MODEL: MODEL01 SSE 3313.36 F RATIO 3415.71
DFE 9082 PROB>F 0.0001
DEP VAR: LOGEARN MSE 0.364827 R-SQUARE 0.6007

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-2.297246	0.067206	-34.1819	0.0001	
CH	1	0.081211	0.003178059	25.5538	0.0001	
OGWKWRK	1	0.399839	0.021351	18.7271	0.0001	
UBCOW	1	0.197102	0.016154	12.2012	0.0001	
NNHOURS	1	0.0007647114	.00001618038	47.2617	0.0001	

MODEL: MODEL01 SSE 63875.25 F RATIO 1644.44
DEP VAR: EARNINGS DFE 6567 PROB>F 0.0001
MSE 9.726702 R-SQUARE 0.5004

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-6.749403	0.390432	-17.2870	0.0001	
SCH	1	0.526862	0.018239	28.8869	0.0001	
LOGWKWRK	1	-0.113155	0.117250	-0.9651	0.3345	
PUBCOW	1	1.097308	0.096948	11.3185	0.0001	
ANNHOURS	1	0.00397598	.00008534151	46.5890	0.0001	

MODEL: MODEL01 SSE 2732.062 F RATIO 2270.18
DEP VAR: LOGEARN DFE 6567 PROB>F 0.0001
MSE 0.416029 R-SQUARE 0.5803

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-2.153547	0.080747	-26.6705	0.0001	
SCH	1	0.073191	0.003772026	19.4036	0.0001	
LOGWKWRK	1	0.367199	0.024249	15.1429	0.0001	
PUBCOW	1	0.211049	0.020050	10.5260	0.0001	
ANNHOURS	1	0.0008162317	.00001764978	46.2460	0.0001	

ODEL: MODEL01 SSE 60069.98 F RATIO 1505.12
EP VAR: EARNINGS DFE 6133 PROB>F 0.0001
MSE 9.794551 R-SQUARE 0.4954

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-5.712322	0.404756	-14.1130	0.0001	
SCH	1	0.534698	0.018097	29.5458	0.0001	
OGWKWRK	1	-0.456444	0.122632	-3.7221	0.0002	
UBCOW	1	0.931527	0.098096	9.4961	0.0001	
NNHOURS	1	0.004088503	.00008593253	47.5781	0.0001	

ODEL: MODEL01 SSE 2438.457 F RATIO 2155.95
EP VAR: LOGEARN DFE 6133 PROB>F 0.0001
MSE 0.397596 R-SQUARE 0.5844

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-1.950432	0.081550	-23.9171	0.0001	
CH	1	0.076985	0.003646213	21.1138	0.0001	
OGWKWRK	1	0.277811	0.024708	11.2438	0.0001	
UBCOW	1	0.197924	0.019764	10.0143	0.0001	
NNHOURS	1	0.0008634977	.00001731356	49.8741	0.0001	

MODEL: MODEL01 SSE 289802.5 F RATIO 5492.88
DEP VAR: EARNINGS DFE 27483 PROB>F 0.0001
MSE 10.544790 R-SQUARE 0.4443

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-4.848614	0.222772	-21.7649	0.0001	
SCH	1	0.429148	0.007359344	58.3133	0.0001	
LOGWKWRK	1	-0.170501	0.066954	-2.5465	0.0109	
PUBCOW	1	1.693616	0.048079	35.2259	0.0001	
ANNHOURS	1	0.003693176	.00004275908	86.3717	0.0001	

MODEL: MODEL01 SSE 12745.33 F RATIO 6704.28
DEP VAR: LOGEARN DFE 27483 PROB>F 0.0001
MSE 0.463753 R-SQUARE 0.4939

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-1.643998	0.046718	-35.1897	0.0001	
SCH	1	0.061679	0.001543347	39.9645	0.0001	
LOGWKWRK	1	0.254998	0.014041	18.1607	0.0001	
PUBCOW	1	0.293516	0.010083	29.1107	0.0001	
ANNHOURS	1	0.0008319415	.00000896712	92.7769	0.0001	

4. Model 4

'ODEL: MODEL01 SSE 3038051 F RATIO 4417.86
DFE 85835 PROB>F 0.0001
EP VAR: EARNINGS MSE 35.394082 R-SQUARE 0.4009

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-23.258552	0.212566	-109.4182	0.0001	
Q1	1	0.212363	0.00294838	72.0271	0.0001	
Q2	1	0.158749	0.00405148	39.1829	0.0001	
Q3	1	0.143731	0.00202458	70.9930	0.0001	
Q4	1	0.102713	0.00396021	25.9362	0.0001	
Q5	1	0.125556	0.005144609	24.4053	0.0001	
.OGWKWRK	1	5.778445	0.052710	109.6279	0.0001	
ZY	1	-5.802492	0.424817	-13.6588	0.0001	
PUBCOW	1	-0.726705	0.056057	-12.9637	0.0001	
R1	1	0.897021	0.008554449	104.8602	0.0001	
R2	1	0.771941	0.011093	69.5886	0.0001	
R3	1	0.783479	0.009882721	79.2776	0.0001	
R4	1	0.668552	0.012220	54.7075	0.0001	
5	1	0.683637	0.015499	44.1077	0.0001	

'ODEL: MODEL01 SSE 41142.56 F RATIO 7317.25
DFE 85835 PROB>F 0.0001
EP VAR: LOGEARN MSE 0.479321 R-SQUARE 0.5257

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-4.037524	0.024737	-163.2202	0.0001	
Q1	1	0.018066	0.0003431087	52.6545	0.0001	
Q2	1	0.019212	0.0004714785	40.7481	0.0001	
Q3	1	0.019257	0.0002356042	81.7357	0.0001	
Q4	1	0.019360	0.0004608572	42.0078	0.0001	
Q5	1	0.011280	0.0005986879	18.8416	0.0001	
.OGWKWRK	1	1.245769	0.006133921	203.0951	0.0001	
ZY	1	-1.216952	0.049437	-24.6163	0.0001	
PUBCOW	1	-0.00851637	0.006523452	-1.3055	0.1917	
R1	1	0.098777	0.0009954974	99.2238	0.0001	
R2	1	0.085375	0.001290904	66.1360	0.0001	
R3	1	0.092621	0.001150071	80.5352	0.0001	
R4	1	0.058267	0.001422121	40.9720	0.0001	
R5	1	0.050726	0.00180368	28.1236	0.0001	

MODEL: MODEL01
DEP VAR: EARNINGS

SSE	640775.8	F RATIO	4155.04	
DFE	66927	PROB>F	0.0001	
MSE	9.574249	R-SQUARE	0.4466	

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-11.736366	0.114457	-102.5399	0.0001	
Q1	1	0.054211	0.001971263	27.5008	0.0001	
Q2	1	0.037415	0.001378462	27.1427	0.0001	
Q3	1	0.038849	0.001943523	19.9890	0.0001	
Q4	1	0.012380	0.001590748	7.7826	0.0001	
Q5	1	0.035885	0.005498372	6.5265	0.0001	
LOGWKWRK	1	3.417480	0.025032	136.5271	0.0001	
ZY	1	-5.225401	0.102981	-50.7416	0.0001	
PUBCOW	1	0.941661	0.031031	30.3461	0.0001	
R1	1	0.416777	0.005901161	70.6263	0.0001	
R2	1	0.300136	0.006752137	44.4505	0.0001	
R3	1	0.304007	0.007591474	40.0458	0.0001	
R4	1	0.224867	0.007143886	31.4769	0.0001	
R5	1	0.244751	0.014401	16.9957	0.0001	

MODEL: MODEL01
DEP VAR: LOGEARN

SSE	32605.78	F RATIO	5813.99	
DFE	66927	PROB>F	0.0001	
MSE	0.487184	R-SQUARE	0.5304	

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-3.842933	0.025819	-148.8428	0.0001	
Q1	1	0.005206772	0.000444671	11.7093	0.0001	
Q2	1	0.006738939	0.000310949	21.6722	0.0001	
Q3	1	0.010457	0.0004384135	23.8520	0.0001	
Q4	1	0.005634758	0.0003588358	15.7029	0.0001	
Q5	1	0.009520558	0.001240305	7.6760	0.0001	
LOGWKWRK	1	1.147550	0.005646525	203.2312	0.0001	
ZY	1	-1.239711	0.023230	-53.3668	0.0001	
PUBCOW	1	0.186249	0.006999815	26.6078	0.0001	
R1	1	0.084712	0.001331164	63.6374	0.0001	
R2	1	0.068799	0.001523125	45.1696	0.0001	
R3	1	0.070598	0.00171246	41.2259	0.0001	
R4	1	0.037627	0.001611494	23.3489	0.0001	
R5	1	0.024646	0.003248478	7.5868	0.0001	

SEX=1

'ODEL: MODEL01 SSE 2855186 F RATIO 3951.97
DFE 78226 PROB>F 0.0001
.EP VAR: EARNINGS MSE 36.499196 R-SQUARE 0.3964

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
:NTERCEPT	1	-24.088175	0.233204	-103.2923	0.0001	
Q1	1	0.213329	0.003077657	69.3153	0.0001	
Q2	1	0.158573	0.004268511	37.1496	0.0001	
Q3	1	0.146740	0.002160304	67.9257	0.0001	
Q4	1	0.108644	0.004451229	24.4075	0.0001	
Q5	1	0.129915	0.005452301	23.8276	0.0001	
.OGWKWRK	1	5.974684	0.057490	103.9247	0.0001	
ZY	1	-5.847062	0.443934	-13.1710	0.0001	
PUBCOW	1	-0.879870	0.060941	-14.4382	0.0001	
R1	1	0.908493	0.009195025	98.8027	0.0001	
R2	1	0.785927	0.011875	66.1813	0.0001	
R3	1	0.793854	0.010763	73.7565	0.0001	
R4	1	0.676119	0.013396	50.4716	0.0001	
R5	1	0.688440	0.016415	41.9404	0.0001	

'ODEL: MODEL01 SSE 36891.94 F RATIO 6626.51
DFE 78226 PROB>F 0.0001
.EP VAR: LOGEARN MSE 0.471607 R-SQUARE 0.5241

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
:NTERCEPT	1	-4.056893	0.026508	-153.0414	0.0001	
Q1	1	0.018072	0.0003498394	51.6592	0.0001	
Q2	1	0.019145	0.0004852046	39.4584	0.0001	
Q3	1	0.019527	0.0002455632	79.5205	0.0001	
Q4	1	0.020534	0.0005059743	40.5827	0.0001	
Q5	1	0.011542	0.0006197669	18.6233	0.0001	
.OGWKWRK	1	1.252831	0.006534984	191.7115	0.0001	
ZY	1	-1.232515	0.050462	-24.4245	0.0001	
PUBCOW	1	-0.014799	0.006927151	-2.1364	0.0327	
R1	1	0.098786	0.001045205	94.5136	0.0001	
R2	1	0.085232	0.00134988	63.1407	0.0001	
R3	1	0.092324	0.001223458	75.4614	0.0001	
R4	1	0.056280	0.001522738	36.9600	0.0001	
R5	1	0.050185	0.001865874	26.8964	0.0001	

SEX=2

MODEL: MODEL01 SSE 565381 F RATIO 3648.53
DFE 59399 PROB>F 0.0001
DEP VAR: EARNINGS MSE 9.518360 R-SQUARE 0.4440

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-11.748688	0.123356	-95.2419	0.0001	
Q1	1	0.054211	0.002038338	26.5958	0.0001	
Q2	1	0.036840	0.001422653	25.8955	0.0001	
Q3	1	0.040457	0.002060284	19.6365	0.0001	
Q4	1	0.013191	0.001757065	7.5074	0.0001	
Q5	1	0.035872	0.005920033	6.0595	0.0001	
LOGWKWRK	1	3.400056	0.026586	127.8888	0.0001	
ZY	1	-5.208513	0.105105	-49.5552	0.0001	
PUBCOW	1	0.826200	0.033603	24.5871	0.0001	
R1	1	0.417426	0.006338651	65.8541	0.0001	
R2	1	0.303103	0.007272106	41.6803	0.0001	
R3	1	0.304654	0.008196991	37.1665	0.0001	
R4	1	0.223893	0.007801637	28.6982	0.0001	
R5	1	0.243414	0.015204	16.0099	0.0001	

MODEL: MODEL01 SSE 28839.74 F RATIO 5168.43
DFE 59399 PROB>F 0.0001
DEP VAR: LOGEARN MSE 0.485526 R-SQUARE 0.5308

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-3.828198	0.027860	-137.4067	0.0001	
Q1	1	0.005386726	0.000460364	11.7010	0.0001	
Q2	1	0.006704485	0.0003213099	20.8661	0.0001	
Q3	1	0.010954	0.0004653205	23.5398	0.0001	
Q4	1	0.006284958	0.0003968377	15.8376	0.0001	
Q5	1	0.00969246	0.001337055	7.2491	0.0001	
LOGWKWRK	1	1.142943	0.006004524	190.3470	0.0001	
ZY	1	-1.238330	0.023738	-52.1660	0.0001	
PUBCOW	1	0.169438	0.007589305	22.3259	0.0001	
R1	1	0.084441	0.001431601	58.9838	0.0001	
R2	1	0.068240	0.001642424	41.5484	0.0001	
R3	1	0.068974	0.001851311	37.2570	0.0001	
R4	1	0.034477	0.00176202	19.5665	0.0001	
R5	1	0.022238	0.003433859	6.4762	0.0001	

MODEL: MODEL01 SSE 565381 F RATIO 3648.53
DEP VAR: EARNINGS DFE 59399 PROB>F 0.0001
MSE 9.518360 R-SQUARE 0.4440

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-11.748688	0.123356	-95.2419	0.0001	
Q1	1	0.054211	0.002038338	26.5958	0.0001	
Q2	1	0.036840	0.001422653	25.8955	0.0001	
Q3	1	0.040457	0.002060284	19.6365	0.0001	
Q4	1	0.013191	0.001757065	7.5074	0.0001	
Q5	1	0.035872	0.005920033	6.0595	0.0001	
LOGWKWRK	1	3.400056	0.026586	127.8888	0.0001	
ZY	1	-5.208513	0.105105	-49.5552	0.0001	
PUBCOW	1	0.826200	0.033603	24.5871	0.0001	
R1	1	0.417426	0.006338651	65.8541	0.0001	
R2	1	0.303103	0.007272106	41.6803	0.0001	
R3	1	0.304654	0.008196991	37.1665	0.0001	
R4	1	0.223893	0.007801637	28.6982	0.0001	
R5	1	0.243414	0.015204	16.0099	0.0001	

MODEL: MODEL01 SSE 28839.74 F RATIO 5168.43
DEP VAR: LOGEARN DFE 59399 PROB>F 0.0001
MSE 0.485526 R-SQUARE 0.5308

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-3.828198	0.027860	-137.4067	0.0001	
Q1	1	0.005386726	0.000460364	11.7010	0.0001	
Q2	1	0.006704485	0.0003213099	20.8661	0.0001	
Q3	1	0.010954	0.0004653205	23.5398	0.0001	
Q4	1	0.006284958	0.0003968377	15.8376	0.0001	
Q5	1	0.00969246	0.001337055	7.2491	0.0001	
LOGWKWRK	1	1.142943	0.006004524	190.3470	0.0001	
ZY	1	-1.238330	0.023738	-52.1660	0.0001	
PUBCOW	1	0.169438	0.007589305	22.3259	0.0001	
R1	1	0.084441	0.001431601	58.9838	0.0001	
R2	1	0.068240	0.001642424	41.5484	0.0001	
R3	1	0.068974	0.001851311	37.2570	0.0001	
R4	1	0.034477	0.00176202	19.5665	0.0001	
R5	1	0.022238	0.003433859	6.4762	0.0001	

ODEL: MODEL01		SSE	101421.1	F RATIO	311.30
		DFE	5437	PROB>F	0.0001
EP VAR: EARNINGS		MSE	18.653867	R-SQUARE	0.4267

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-16.383645	0.495560	-33.0608	0.0001	
Q1	1	0.125627	0.013374	9.3933	0.0001	
Q2	1	0.138697	0.012840	10.8022	0.0001	
Q3	1	0.097989	0.005773581	16.9720	0.0001	
Q4	1	0.063481	0.008028688	7.9067	0.0001	
Q5	1	0.019417	0.016873	1.1508	0.2499	
OGWKWRK	1	4.427405	0.124127	35.6683	0.0001	
LY	1	-5.407915	1.794502	-3.0136	0.0026	
PUBCOW	1	0.665905	0.143003	4.6566	0.0001	
R1	1	0.702997	0.027692	25.3859	0.0001	
R2	1	0.541936	0.032933	16.4559	0.0001	
R3	1	0.584000	0.025791	22.6440	0.0001	
R4	1	0.496629	0.030468	16.3002	0.0001	
R5	1	0.490466	0.064902	7.5570	0.0001	

MODEL: MODEL01		SSE	2580.219	F RATIO	538.79
		DFE	5437	PROB>F	0.0001
EP VAR: LOGEARN		MSE	0.474567	R-SQUARE	0.5630

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-3.925819	0.079043	-49.6672	0.0001	
Q1	1	0.010554	0.002133198	4.9477	0.0001	
Q2	1	0.018277	0.002047942	8.9243	0.0001	
Q3	1	0.015255	0.0009208937	16.5656	0.0001	
Q4	1	0.012619	0.001280586	9.8545	0.0001	
Q5	1	-0.00200015	0.002691288	-0.7432	0.4574	
OGWKWRK	1	1.234751	0.019798	62.3661	0.0001	
LY	1	-1.118961	0.286225	-3.9094	0.0001	
PUBCOW	1	0.044260	0.022809	1.9405	0.0524	
R1	1	0.091381	0.004416986	20.6886	0.0001	
R2	1	0.078325	0.005252783	14.9112	0.0001	
R3	1	0.082374	0.004113629	20.0246	0.0001	
R4	1	0.061896	0.004859632	12.7368	0.0001	
R5	1	0.034487	0.010352	3.3314	0.0009	

MODEL: MODEL01		SSE	47778.13	F RATIO	470.01
		DFE	5619	PROB>F	0.0001
DEP VAR: EARNINGS		MSE	8.502960	R-SQUARE	0.5209

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-12.315908	0.349668	-35.2217	0.0001	
1	1	0.050090	0.008689921	5.7642	0.0001	
2	1	0.071854	0.006620235	10.8537	0.0001	
3	1	0.033872	0.006314454	5.3643	0.0001	
4	1	0.00353981	0.004410761	0.8025	0.4223	
5	1	0.027209	0.016089	1.6911	0.0909	
LOGWKWRK	1	3.472437	0.081442	42.6369	0.0001	
ZY	1	-2.814684	0.776117	-3.6266	0.0003	
PUBCOW	1	1.159097	0.092756	12.4962	0.0001	
R1	1	0.524506	0.019982	26.2486	0.0001	
R2	1	0.359551	0.022077	16.2859	0.0001	
R3	1	0.375296	0.023016	16.3056	0.0001	
R4	1	0.307114	0.021143	14.5257	0.0001	
R5	1	0.366697	0.056718	6.4653	0.0001	

MODEL: MODEL01		SSE	2354.482	F RATIO	616.13
		DFE	5619	PROB>F	0.0001
DEP VAR: LOGEARN		MSE	0.419021	R-SQUARE	0.5877

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-4.115944	0.077623	-53.0250	0.0001	
21	1	0.0008604376	0.001929074	0.4460	0.6556	
2	1	0.011511	0.001469625	7.8326	0.0001	
3	1	0.007119107	0.001401744	5.0787	0.0001	
4	1	0.0002758814	0.000979144	0.2818	0.7781	
5	1	0.002784785	0.003571699	0.7797	0.4356	
OGWKWRK	1	1.192767	0.018079	65.9742	0.0001	
Y	1	-0.368267	0.172290	-2.1375	0.0326	
UBCOW	1	0.210511	0.020591	10.2235	0.0001	
R1	1	0.104808	0.004435855	23.6275	0.0001	
R2	1	0.085244	0.004900962	17.3932	0.0001	
R3	1	0.094640	0.005109409	18.5227	0.0001	
R4	1	0.069790	0.004693466	14.8696	0.0001	
R5	1	0.053218	0.012591	4.2267	0.0001	

MODEL: MODEL01		SSE	60934.97	F RATIO	163.74
		DFE	2927	PROB>F	0.0001
EP VAR: EARNINGS		MSE	20.818233	R-SQUARE	0.4210

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-16.836093	0.748272	-22.5000	0.0001	
1	1	0.235848	0.018813	12.5364	0.0001	
2	1	0.177826	0.022112	8.0421	0.0001	
3	1	0.127824	0.008719184	14.6601	0.0001	
4	1	0.078727	0.012845	6.1292	0.0001	
5	1	0.071903	0.018714	3.8423	0.0001	
OGWKWRK	1	4.860831	0.196653	24.7179	0.0001	
ZY	1	-2.960239	3.245273	-0.9122	0.3618	
PUBCOW	1	-0.156305	0.226724	-0.6894	0.4906	
R1	1	0.549826	0.035977	15.2825	0.0001	
R2	1	0.409783	0.045769	8.9533	0.0001	
R3	1	0.493110	0.032947	14.9668	0.0001	
R4	1	0.383961	0.041251	9.3080	0.0001	
R5	1	0.368289	0.066833	5.5106	0.0001	

MODEL: MODEL01		SSE	1132.399	F RATIO	334.09
		DFE	2927	PROB>F	0.0001
EP VAR: LOGEARN		MSE	0.386880	R-SQUARE	0.5974

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-3.970793	0.102006	-38.9271	0.0001	
1	1	0.019152	0.002564637	7.4677	0.0001	
2	1	0.016672	0.003014318	5.5311	0.0001	
3	1	0.017622	0.001188618	14.8254	0.0001	
4	1	0.014305	0.001751011	8.1696	0.0001	
5	1	0.013989	0.00255107	5.4836	0.0001	
OGWKWRK	1	1.314161	0.026808	49.0210	0.0001	
ZY	1	-0.676301	0.442403	-1.5287	0.1264	
UBCOW	1	-0.028513	0.030908	-0.9225	0.3563	
R1	1	0.069454	0.004904517	14.1612	0.0001	
R2	1	0.054257	0.006239324	8.6959	0.0001	
R3	1	0.063479	0.004491399	14.1334	0.0001	
R4	1	0.037790	0.00562339	6.7202	0.0001	
R5	1	0.026304	0.009110858	2.8871	0.0039	

MODEL: MODEL01		SSE	11472.6	F RATIO	152.39	
		DFE	2016	PROB>F	0.0001	
EP VAR: EARNINGS		MSE	5.690772	R-SQUARE	0.4956	
ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-8.821471	0.393150	-22.4379	0.0001	
1	1	0.048731	0.014140	3.4463	0.0006	
2	1	0.042224	0.008156328	5.1769	0.0001	
3	1	0.052566	0.007163045	7.3385	0.0001	
4	1	0.021570	0.006850723	3.1485	0.0017	
5	1	0.046033	0.020163	2.2830	0.0225	
OGWKWRK	1	2.905915	0.096093	30.2406	0.0001	
ZY	1	-5.217114	0.586598	-8.8939	0.0001	
PUBCOW	1	-0.00390965	0.147314	-0.0265	0.9788	
R1	1	0.365033	0.025160	14.5086	0.0001	
R2	1	0.231260	0.023930	9.6638	0.0001	
R3	1	0.202328	0.024813	8.1541	0.0001	
R4	1	0.147520	0.024279	6.0760	0.0001	
R5	1	0.193239	0.055084	3.5081	0.0005	

MODEL: MODEL01		SSE	698.990328	F RATIO	252.62	
		DFE	2016	PROB>F	0.0001	
DEP VAR: LOGEARN		MSE	0.346721	R-SQUARE	0.6196	
ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-3.362537	0.097043	-34.6500	0.0001	
1	1	0.007222927	0.003490292	2.0694	0.0386	
2	1	0.009768971	0.002013258	4.8523	0.0001	
3	1	0.013068	0.001768082	7.3911	0.0001	
4	1	0.005638762	0.00169099	3.3346	0.0009	
5	1	0.013684	0.004976941	2.7494	0.0060	
OGWKWRK	1	1.114370	0.023719	46.9821	0.0001	
Y	1	-1.377744	0.144792	-9.5153	0.0001	
UBCOW	1	-0.012555	0.036362	-0.3453	0.7299	
R1	1	0.066063	0.006210284	10.6376	0.0001	
R2	1	0.042433	0.005906842	7.1837	0.0001	
R3	1	0.039904	0.006124709	6.5153	0.0001	
R4	1	0.017419	0.005992932	2.9067	0.0037	
R5	1	0.031332	0.013597	2.3044	0.0213	

ODEL: MODEL01		SSE	237072.1	F RATIO	351.46
		DFE	8117	PROB>F	0.0001
EP VAR: EARNINGS		MSE	29.206861	R-SQUARE	0.3602

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-18.210057	0.526961	-34.5568	0.0001	
1	1	0.107376	0.008564681	12.5371	0.0001	
2	1	0.084892	0.010616	7.9963	0.0001	
3	1	0.095161	0.005363494	17.7423	0.0001	
4	1	0.073124	0.008996553	8.1280	0.0001	
5	1	0.084985	0.012194	6.9696	0.0001	
OGWKWRK	1	4.912123	0.127083	38.6528	0.0001	
ZY	1	-6.290023	1.050456	-5.9879	0.0001	
PUBCOW	1	0.284242	0.160184	1.7745	0.0760	
R1	1	0.745452	0.024936	29.8944	0.0001	
R2	1	0.625972	0.032665	19.1633	0.0001	
R3	1	0.584592	0.025551	22.8792	0.0001	
R4	1	0.396802	0.033748	11.7578	0.0001	
R5	1	0.499887	0.046470	10.7571	0.0001	

ODEL: MODEL01		SSE	6056.663	F RATIO	431.82
		DFE	8117	PROB>F	0.0001
EP VAR: LOGEARN		MSE	0.746170	R-SQUARE	0.4088

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-3.506776	0.084228	41.6345	0.0001	
1	1	0.013121	0.00136895	9.5846	0.0001	
2	1	0.013601	0.001696877	8.0150	0.0001	
3	1	0.016116	0.0008572832	18.7995	0.0001	
4	1	0.016885	0.001437979	11.7425	0.0001	
5	1	0.003466216	0.00194899	1.7785	0.0754	
OGWKWRK	1	1.079802	0.020313	53.1593	0.0001	
ZY	1	-1.233187	0.167901	-7.3447	0.0001	
UBCOW	1	0.057948	0.025603	2.2633	0.0236	
R1	1	0.100940	0.003985713	25.3254	0.0001	
R2	1	0.089485	0.005221102	17.1391	0.0001	
R3	1	0.091947	0.004084021	22.5139	0.0001	
R4	1	0.045346	0.005394187	8.4065	0.0001	
R5	1	0.052476	0.007427653	7.0649	0.0001	

MODEL: MODEL01 SSE 38687.92 F RATIO 281.54
DFE 5244 PROB>F 0.0001
DEP VAR: EARNINGS MSE 7.377559 R-SQUARE 0.4110

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-8.185019	0.310674	-26.3460	0.0001	
Q1	1	0.009954957	0.006504865	1.5304	0.1260	
Q2	1	0.018521	0.004465341	4.1478	0.0001	
Q3	1	0.026491	0.005038407	5.2579	0.0001	
Q4	1	0.00321801	0.003908559	0.8233	0.4104	
Q5	1	0.027237	0.013065	2.0848	0.0371	
LOGWKWRK	1	2.585326	0.070285	36.7833	0.0001	
ZY	1	-3.696555	0.302541	-12.2184	0.0001	
PUBCOW	1	1.302668	0.102657	12.6895	0.0001	
R1	1	0.357772	0.018303	19.5471	0.0001	
R2	1	0.227722	0.018836	12.0894	0.0001	
R3	1	0.246058	0.020300	12.1212	0.0001	
R4	1	0.142979	0.018573	7.6983	0.0001	
R5	1	0.096972	0.044639	2.1724	0.0299	

MODEL: MODEL01 SSE 3550.812 F RATIO 282.84
DFE 5244 PROB>F 0.0001
DEP VAR: LOGEARN MSE 0.677119 R-SQUARE 0.4122

VARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
INTERCEPT	1	-3.314022	0.094120	-35.2107	0.0001	
Q1	1	0.0006683491	0.001970672	0.3391	0.7345	
Q2	1	0.003526948	0.001352791	2.6072	0.0092	
Q3	1	0.010654	0.001526404	6.9800	0.0001	
Q4	1	0.001828663	0.001184112	1.5443	0.1226	
Q5	1	0.006292954	0.003957953	1.5900	0.1119	
LOGWKWRK	1	0.946851	0.021293	44.4673	0.0001	
ZY	1	-0.745495	0.091656	-8.1336	0.0001	
PUBCOW	1	0.303888	0.031100	9.7712	0.0001	
R1	1	0.091319	0.005544991	16.4688	0.0001	
R2	1	0.075445	0.00570658	13.2207	0.0001	
R3	1	0.079880	0.006149914	12.9888	0.0001	
R4	1	0.046516	0.005626725	8.2669	0.0001	
R5	1	0.006730499	0.013524	0.4977	0.6187	

ODEL: MODEL01 SSE 339215.6 F RATIO 480.98
EP VAR: EARNINGS DFE 10490 PROB>F 0.0001
MSE 32.337041 R-SQUARE 0.3735

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-20.723353	0.567853	-36.4942	0.0001	
1	1	0.151093	0.008016547	18.8477	0.0001	
2	1	0.128518	0.010773	11.9299	0.0001	
3	1	0.108690	0.005217244	20.8328	0.0001	
4	1	0.064156	0.008653837	7.4136	0.0001	
5	1	0.116944	0.012369	9.4546	0.0001	
OGWKWRK	1	5.894304	0.145529	40.5026	0.0001	
ZY	1	-6.516537	1.279916	-5.0914	0.0001	
UBCOW	1	-0.268748	0.153208	-1.7541	0.0794	
R1	1	0.733842	0.020953	35.0234	0.0001	
R2	1	0.539640	0.029951	18.0176	0.0001	
R3	1	0.557574	0.022655	24.6117	0.0001	
R4	1	0.450184	0.029754	15.1301	0.0001	
R5	1	0.455704	0.049060	9.2888	0.0001	

ODEL: MODEL01 SSE 5060.036 F RATIO 708.40
EP VAR: LOGEARN DFE 10490 PROB>F 0.0001
MSE 0.482368 R-SQUARE 0.4675

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-3.569636	0.069355	-51.4694	0.0001	
1	1	0.012835	0.0009790982	13.1093	0.0001	
2	1	0.015671	0.001315728	11.9107	0.0001	
3	1	0.014862	0.0006372062	23.3235	0.0001	
4	1	0.011887	0.001056933	11.2468	0.0001	
5	1	0.008856587	0.001510687	5.8626	0.0001	
OGWKWRK	1	1.234909	0.017774	69.4779	0.0001	
Y	1	-1.425090	0.156322	-9.1164	0.0001	
UBCOW	1	-0.00702548	0.018712	-0.3755	0.7073	
R1	1	0.074152	0.002559071	28.9761	0.0001	
R2	1	0.054833	0.00365802	14.9899	0.0001	
R3	1	0.061145	0.00276694	22.0984	0.0001	
R4	1	0.035185	0.003634033	9.6821	0.0001	
R5	1	0.029247	0.005991887	4.8811	0.0001	

MODEL: MODEL01 SSE 68932.42 F RATIO 457.18
EP VAR: EARNINGS DFE 7603 PROB>F 0.0001
MSE 9.066476 R-SQUARE 0.4387

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-10.205391	0.296817	-34.3828	0.0001	
1	1	0.034763	0.006178627	5.6263	0.0001	
2	1	0.034179	0.004002492	8.5394	0.0001	
3	1	0.037778	0.004346659	8.6913	0.0001	
4	1	0.008060248	0.004165729	1.9349	0.0530	
5	1	0.041044	0.012921	3.1764	0.0015	
OGWKWRK	1	3.299634	0.072226	45.6850	0.0001	
ZY	1	-5.240376	0.267674	-19.5775	0.0001	
PUBCOW	1	0.694866	0.094095	7.3847	0.0001	
R1	1	0.403196	0.014862	27.1301	0.0001	
R2	1	0.227450	0.016032	14.1870	0.0001	
R3	1	0.207050	0.017579	11.7780	0.0001	
R4	1	0.164026	0.016643	9.8557	0.0001	
R5	1	0.183163	0.041869	4.3747	0.0001	

MODEL: MODEL01 SSE 3402.622 F RATIO 610.92
EP VAR: LOGEARN DFE 7603 PROB>F 0.0001
MSE 0.447537 R-SQUARE 0.5109

ARIABLE	DF	PARAMETER ESTIMATE	STANDARD ERROR	T RATIO	PROB>|T|	VARIABLE LABEL
NTERCEPT	1	-3.251896	0.065945	-49.3121	0.0001	
1	1	0.003006385	0.001372736	2.1901	0.0285	
2	1	0.005783393	0.0008892534	6.5036	0.0001	
3	1	0.009334138	0.0009657186	9.6655	0.0001	
4	1	0.0006700755	0.0009255205	0.7240	0.4691	
5	1	0.013192	0.002870781	4.5953	0.0001	
OGWKWRK	1	1.094392	0.016047	68.2002	0.0001	
Y	1	-1.351353	0.059470	-22.7231	0.0001	
UBCOW	1	0.115940	0.020905	5.5459	0.0001	
R1	1	0.066505	0.00330187	20.1416	0.0001	
R2	1	0.042662	0.003561978	11.9771	0.0001	
R3	1	0.037312	0.003905715	9.5531	0.0001	
R4	1	0.023366	0.003697612	6.3191	0.0001	
R5	1	0.004334416	0.009302153	0.4660	0.6413	